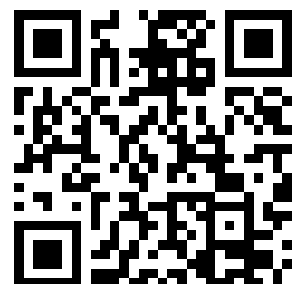


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REPORT  
ON  
THE SANA KACHIN EXPEDITION,  
1895-1896,

BY  
LIEUTENANT M. N. TURNER,

1ST BATTALION DUKE OF CORNWALL'S LIGHT INFANTRY ATTACHE INTELLIGENCE BRANCH.

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Map of Country } in pocket of cover.  
Signalling Map }



## I.—INTRODUCTION.

ON the 16th December 1892 a party of Sana Kachins, estimated to be 150 strong, attacked the post of Myitkyina, burnt down the civil station, and killed the Subadar-Major of the Military Police detachment quartered there and a drabi. A column was despatched to punish them very shortly afterwards under command of Captain Alban, Military Police, but on the Sima Expedition meeting with serious opposition the column was ordered to the Sima Hills and the Sana Kachins remained unpunished up to the present date.

In addition to the attack on Myitkyina a series of eight dacoities and murders in the Mogaung and Myitkyina districts among villages under our protection remained unpunished (*see list.*)

In consequence of these offences it was decided to despatch an expedition against them with the object of punishing them drastically and of showing them we were to be trifled with no longer. The following terms were to be offered to the offenders:—Total immunity on payment of a fine of Rs. 15 per house and one gun for every five houses. Villages not complying to be heavily punished by complete disarmament, destruction of their stores and cattle, and capture and deportation to Myitkyina of all their headmen and elders. The expedition consisted of two columns, one from Myitkyina and another from Mogaung, which were ordered to converge on Panlang or its neighbourhood, when Major Atkinson was to assume military command of the whole expedition with Mr. Martini as chief Civil Officer. The strength of the columns was as follows:—

### *Myitkyina or Eastern Column.*

Captain Newbold,  
Lieutenant Cruddas, } Military Police.  
Lieutenant Parsons,  
Surgeon-Captain Pinto, I.M.S.  
200 rifles (Gurkhas), Myitkyina Police Battalion.  
10 Mounted Infantry, Myitkyina Police Battalion.  
2 seven-pounder R.M.L. guns (150 lbs.) carried by 80 coolies.  
Transport consisting of Panthay mules.  
10 signallers.

Major Atkinson and Mr. Martini accompanied this column.

### *Mogaung or Western Column.*

Lieutenant Chesney, } Military Police.  
Lieutenant Wallis, }  
Lieutenant Turner, 1st Duke of Cornwall's Light Infantry, Intelligence Officer.  
Surgeon-Captain Strickland, I.M.S.  
Mr. Chapman, Civil Officer.  
200 rifles (Gurkhas), Mogaung Military Police Battalion.  
10 signallers, Mogaung Military Police Battalion.  
200 Panthay mules and 20 days' rations.

A post was established, before the columns started, at Lapye, near the confluence on the Irrawaddy, to act as a base and facilitate the forwarding of rations from Myitkyina.

*Statement of Crimes committed by the Sana Kachins.*

Serial No.	Date of commission.	Locality.	Nature of crime.	Number of persons murdered and abducted.	Nature and value of property stolen or destroyed.	Villages implicated.	Number of persons.	Ringleaders.
1	30th April 1888	... Mogaung	Murder and abduction	One killed ; three abducted.	.....	Panlang	...	Panlang Wa.
2	16th December 1893	... Myitkyina	Waging war against the Queen.	Two killed	Civil station burnt down.	The whole South Sana tract ; part of North Sana tract.	150	Sinraing Wa of Sinaing, Mitwe Wa of Sabaw, Malang La his brother, Kaisu Mitwe of Lankankong, Nkri Wa of Nkai, Sawbwa of Katanpum, Kara Wa of Kara, Ndaung Mitwe Wa, Koitaung Wa of Koitaung, Maitum Nom. Sau Li. La Wa.
3	21st January 1894	... Mogaung river, 25 miles north-west of Mogaung.	Dacoity	.....	Clothing, &c., with Rs. 173-4-0 taken.	{ Waga { Sachyi	8 {	
4	21st March 1894	... Mogaung river between Mogaung and Kamaing.	Dacoity with murder	Two men killed	Clothing, &c., with Rs. 230 taken.	{ Sachyi { Waga	5 {	Sachyi Tang.
5	27th April 1894	... Mogaung, Laban river	Dacoity	.....	One Winchester repeater, two das, and Rs. 70 worth of property.	Sachyi Waga	7 {	Not known.
6	May 1894	... Myitkyina near Sakat	Murder	One man killed	Nil	Lakangtang	2	Maitum Nong, Lajangtang (village not known).
7	13th January 1895	... Myitkyina, Sakat	Dacoity with murder ; abduction.	One killed ; one wounded ; three persons abducted since sold as slaves.	Rupees 187 worth of property taken.	Pumwai (Wawang Samta). Sabaw. Lakangkang. Ponkongdru.	20	Sabaw Mitwe Wa, Malang Ta (his brother). Maitum San. Maitum Twe.
8	4th April 1895	... Mogaung, Pakreh	Dacoity with murder	One killed ; one wounded.	Rs. 500 worth of property taken.	Ninglaw Kapa, Maiteng, Paokong Tau (?)	8	Makaw La, Sabaw Nong, Kra Sha Kala.
9	May 1895	... Myitkyina, Kumbangpum.	Murder	One killed	House worth Rs. 150 burnt.	N'dan Kauri	10	Kauri Wa.

## II.—DIARY.

*23rd November 1895.*—Having received orders to join the expedition against the Sana Kachins as Intelligence Officer, I arrived in Myitkyina from Rangoon. Owing to transport not being procurable I heard that we are not likely to start before the 15th December, instead of on the 1st as originally intended.

*24th.*—Hearing Major Atkinson is going out on the 26th for a few days to find an intermediate signalling-station between here and the Sana country, I have asked for and obtained permission to accompany him.

*25th.*—Wired to Deputy Assistant Quartermaster-General to ask permission to accompany the Western or Mogaung column to Panlang, as Major Atkinson wishes me to. Received answer in the affirmative. My Surveyor and Interpreter arrived from Bhamo.

*26th.*—Started at 10 A.M. with Major Atkinson and Lieutenant Cruddas in the launch *Mary* for Sakap, a party of 25 Gurkhas having been sent on in advance by road as escort. The idea is to find a suitable signalling-station on the high range of hills north of Myitkyina.

We got along all right as far as Watu rapids, but stuck hopelessly there, and, not being able to get enough men to haul us off, we waded ashore and camped for the night in Watu village. We sent on for the escort which had gone on to Sakap, and they arrived in the afternoon after a long march.

*27th.*—Got the launch off and towed her through the rapids. Arrived Sakap without further mishap. Camped here for the night. Went for a walk in the direction of the hills and returned at sunset after going about 3 miles along the road.

*28th.*—Started 6 A.M. with 20 men and arrived at the top of Pum-krin-bum at 12 after a very trying climb up-hill through thick kaing grass. I did a sketch of the road with a cavalry sketching case. Got a splendid view of the plain from the top, and communicated with Myitkyina by helio. Panlang is not visible from here, being hidden behind other ranges of hills. Water is too far off (2 miles) to make this point suitable as a signalling-station, so this trip has unfortunately failed in its object. I made the hill 3,218 feet high by boiling point thermometer.

We returned to Sakap at 5 P.M.

*29th.*—Started 9-55 on our return journey to Myitkyina and arrived at 11-30.

*30th November and 1st and 2nd December.*—Halted at Myitkyina.

*3rd.*—Left Myitkyina for Mogaung in the *Privateer* with Lieutenant Puttock, Surgeon-Captain Strickland, I. M. S., and Mr. Chapman, and arrived at Hokat at 5 P.M.

*4th.*—We left Hokat at 9-30 A.M. with our kit carried by Panthay mules, and arrived at Tapaw 9 P.M. after a long and tiring march. Distance 23 miles.

*5th.*—Left Tapaw 10 A.M. and rode into Pinka police post in an hour; were hospitably welcomed by Lieutenant Chesney, 5th Gurkhas, Commanding the Mogaung Battalion of Military Police.

*6th to 14th.*—Halted at Pinka.

*15th.*—Mule transport arrived.

*16th to 18th.*—Halted Pinka.

*19th.*—The column started from Pinka at 12 o'clock and camped for the night at Mogaung, on the left bank of the Mogaung chaung. The river being too deep at this time of year for fording, loads were carried across in boats, the mules swimming across.

*20th.*—Started 8-50 A.M. and arrived at Nanti 2-40 P.M. Distance 10 miles 3 furlongs. Perfectly flat country all the way, and for the most part path lies through high kaing grass. Mules all in within half an hour of our arrival; camped in the village.

*21st.*—Started 7-30 A.M., passed through Namkhan at 9-5. We saw here a baby elephant which was captured last night by the villagers, who wounded the mother. Arrived camp on Sinwa-kha at 1-15 P.M. Distance 11 miles 1 furlong. Good camp and plenty of water and grass.

22nd.—Lieutenant Chesney started at 7-30 A.M. with 100 men in advance of transport, as we were now approaching within measurable distance of the Sana country.

I accompanied transport and started 8-30 A.M. Arrived camp Tinbong-kha 12-50; cleared jungle to form a camping-ground. Length of march 7 miles 4 furlongs. The march today was through dense jungle the whole of the way.

23rd.—Halt.

24th.—Left at 7-30 with advance guard. The road is very bad and along bed of stream most of the way in about one foot of water. Fallen trees block the road at short intervals and either had to be cut through or a path cut round through the jungle for the transport. Arrived at camp on Maru-kha at 12. Jungle had to be cleared to form a camping-ground. Distance 6 miles 5 furlongs.

25th.—Marched at 7-30 with advance guard. Road bad and along bed of stream, but was not quite so blocked by fallen trees as yesterday. Passed through the Tauta defile, where Captain O'Donnell was fired at in 1889. Flanking parties were sent out and we worked slowly through the defile, which is easily outflanked and not nearly as formidable a place as we had been given to understand. In years gone by the Burmans sent a force up to the Sana country and were attacked here by the Kachins, losing 70 men. Arrived at camp on Pali-kha 12-15. Distance 6 miles 3 furlongs. The Civil Officer sent out to the village of Pumrong (or Mawyan) to fetch them in.

26th.—Halt. Mawyan came in with paddy and fowls as presents. He says the Panlang people (Panlang is an independent village) wanted to oppose us here, but he (Mawyan) refused to let them do so this side of the Pungin-kha.

27th.—Marched 7-30. Reached Pumrong at 10-30. We here got into heliographic communication with the Myitkyina column, which is at N'dau. Heard that they had not been opposed and that Captain Newbold had marched that morning to meet us at Panlang. Took Mawyan, the headman of Pumrong, with us, and while nearing the Pungin-kha he seemed very averse to marching with the point party. We, however, crossed the Pungin-kha and reached Panlang, a quarter of a mile further on up a very steep hill, without opposition. Found Captain Newbold and Lieutenant Cruddas there with a party and the villagers at home and friendly.

Got into heliographic communication *via* N'dau and Loi Lem with Myitkyina and wired to Deputy Assistant Quartermaster-General to report arrival.

Length of march 7 miles 1 furlong. Height of Panlang 939 feet by B. P. T.

28th.—Halt. Finished off road sketches and reports.

29th.—Accompanied Captain Newbold to N'dau, distance 7 miles 1 furlong. The villages of Kara and N'dau Metankong are passed through on the road. N'dau is on the Pipum range and 2,622 feet by B. P. T. Myitkyina column all well. Found Surveyors Lutchman Jadu and Mahomed Naki of the Survey of India Department here.

30th.—Halt. A good view is obtained from here to the east of the country on the left bank of Mali-kha and to the west as far as the Kumôn range.

31st.—Returned to Panlang. The Mogaung column is to work round the villages at the foot of the Kumôn range and join the Myitkyina column at Maiteng.

1st and 2nd January 1896.—Halt.

3rd.—Marched to Chitmupum (or Krashaka). Started 8-20 and arrived at 12-30. The road to Pumrong is followed to within three-quarters of a mile of that village, when it branches sharply off to the right. The Myouk-kha, which is the only stream of any size crossed in today's march, is so named from the fact that when the Burmans sent up an expedition here they fired off a large gun by this river. Length of march 5 miles 1 furlong. Good camping-ground in village. Water from stream 300 yards away. Grass plentiful.

4th.—Marched with Lieutenant Wallis and Mr. Chapman to Sirin and back; distance there and back 4 miles 4 furlongs. Started 7-45 and got back at 1-0.

The route lies along the bed of the Myouk-kha nearly the whole way. Sirin is the largest village in these parts and consists of 22 houses. It was not implicated in the raid on Myitkyina. It stands 1,500 feet above sea-level and a good

view is obtained from it. Took bearings to Ledan, N'koi, N'dau, Lekonsé, N'kringyan. The villagers showed us a quiver-full of poisoned arrows, the poison for which is extracted from a tree in the village. They say this is the only tree of the kind in the neighbourhood and that the poison is extremely deadly.

5th.—Marched to Batwi. Started 8 and arrived at 10-30; distance 3 miles 6 furlongs.

Half a mile from Batwi a large taungya is crossed, quite three-quarters of a mile in length by a quarter broad. The Lepi-kha flows through this taungya and a large body of troops could be camped here in case of necessity. Passed through the villages of Lagyara and Paurau.

Good camping-ground, but water from very small rivulet, which prevents much being obtained at a time.

6th.—Halt. This village has got to pay, as it was concerned in the attack on Myitkyina. Heard by helio that the Myitkyina column, on arrival at Maiteng, found the village deserted. Inhabitants evidently anxious to avoid paying up.

7th.—Marched to N'kringyan and back. Left 7-45 and got back at 2 P.M.; total distance 7 miles 6 furlongs. Arrived at N'kringyan, through which village flows N'kring-kha, at 9-20 and Pauwi at 9-30. The latter is a Karen-Lepai village of four houses. Arrived at N'kringyan Kawnan, 1,380 A. B., at 10-10. This village is situated on the top of a small hill and a good view is obtained in every direction. From here I was able to trace the course of the streams which combine to form the Pungin-kha, and also the course of that stream for several miles. The villages of Jum, Mudu, and N'koi are also visible from here. There is a route due west of this through a pass to the Hukong Valley, but the road is very bad and the route *viâ* Ritpong is generally employed by traders.

Batwi brought in three guns and two buffaloes this evening in part payment of their fine.

8th.—Halt. Batwi paid up the remainder of their fine. We are in heliographic communication with the Myitkyina column at Maiteng.

9th.—Marched to Wesè. Started 8 A.M.; arrived at 9-30; distance 3 miles. Passed through Kumban and crossed Pungin-kha immediately afterwards. It is here about 30 yards broad by 2 feet deep, and very rapid. Passed through Sana on left bank and Wesè three-quarters of a mile further on. Good camping-ground in village on banks of Pungin-kha. Plenty of grass for transport mules.

10th.—Intended going to Jum today, but was not allowed to. General opinion in both columns appears to be that we shall not be opposed; that we shall not visit the Northern Sana tract; and that the work will be finished in a month's time.

11th.—Halt. Villagers brought in rubies and garnets to sell. A Gurkha brought an extraordinary looking beetle, which had the appearance of being composed entirely of a piece of green leaf. Minimum thermometer last night 35°. Today, 2 P.M., 68° in shade. We are not in heliographic communication with other column here.

12th.—Firing was heard in the direction of Maiteng early this morning.

Marched Katanpum, 6 miles 4 furlongs. As the Civil Officer wanted to visit Pouktum, the headman of which village accompanied us from Mogaung, we went by a roundabout road. Started 9 A.M. At Pouktum we had helio message from other column saying they were attacked at daybreak this morning. No casualties. Were warned to be on the look-out.

Arrived Katanpum 2-30. Bad position for a camp and water scarce.

13th.—Marched Maiteng, distance 3 miles 6 furlongs. Started 9-0; arrived 12-0. A stiff climb for the last mile. Found the Myitkyina column all well. Mr. Benson, a globe-trotter, had arrived a day or two previously. The attack on the picquet yesterday is supposed to have been led by the Sabaw Mitwe. Though they hit nobody, their practice seems to have been fairly good, several of the logs forming the stockade in which the picquet were being splintered.

14th.—Halt. Maiteng 1,621 feet above sea-level.

15th.—Marched Nawkum-Nongyan, 3 miles 6 furlongs. The Myitkyina column were sent on in advance. We followed at 11-0 and arrived at 1-0. The

Insop-kha was crossed half-way and is 20 yards broad here, 2 feet deep, and very rapid. This cannot be called a good camping-ground as too many picquets are required.

Kachins concerned in the attack on Maiteng came through here on their way back, apparently in a great hurry. Said they had made a mistake in attacking us and advised the Nongyan people to clear out.

We hear stockades are being built below the village of Katchyan, but they have paid up part of their fine and have been sent back for the rest. They have been fined Rs. 200 and five guns extra for complicity in the Maiteng attack.

*16th.*—Lieutenant Wallis, Surgeon-Captain Strickland, and myself, with 100 rifles, started 7-30 to reconnoitre in the direction of Paugaw, with orders to get there if possible with a view to reporting on it as a site for a rationing base in lieu of N'dau. Passed through Kwikan 9-45. I saw one man bolt into the jungle with a gun, but old men and women were in village. From here path leads over M'Sumprumbum. Reached Tinkram 11-5 and Paugaw 12-10. From the taungya 300 yards north of village a magnificent view is obtained east, south, and west. We heliographed to Loi Lem. A very good site for a post and plenty of water close by. We started back at 1 and reached Nongyan 5; distance 13 miles 4 furlongs. A party under Captain Newbold and Lieutenant Cruddas left camp 7-40, arrived Pauchang 8-0, arrived Dinong-kha 8-30. On the right bank are salt works. Hill above is extremely steep and jungle very thick. Road is quite impracticable for laden mules. There is a shoot for timber here, and the path was blocked by felled trees. Four stockades were found between here and Kachyan, but were all unoccupied.

*17th.*—Halt.

Lieutenant Cruddas and 100 rifles started 7-30 A.M. to reconnoitre; arrived N'Kum-bum 9-5, left 9-25, and arrived Shangyan 10-45. They found villagers at home and friendly.

Among the guns brought in by Kachyan was a double-barrelled 16 bore rifle by Joe Manton, rather the worse for wear, but the barrels were in good condition.

*18th.*—The combined columns marched to Paugaw; started 7-30, arrived 1-0; distance 6 miles 6 furlongs. N'dan post is to be given up and reserve rations to be stored here. Stockade to be commenced at once.

*19th.*—Halt. Lieutenants Wallis and Parsons with 100 men and 250 mules started for N'dau to bring up the rations.

*20th.*—Halt. Sepoys and coolies employed building the temporary post here. Had a slight shower of rain at 5 P.M.

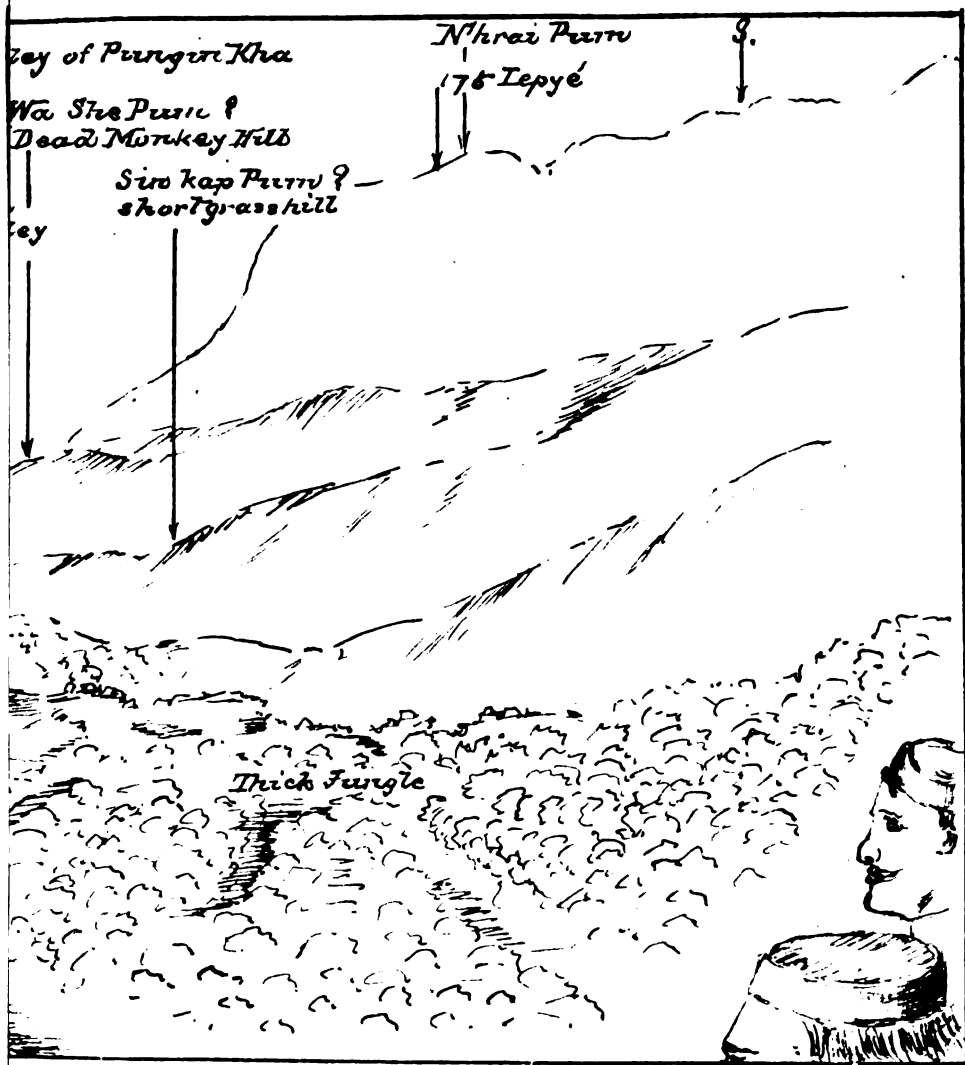
Kauri (the headman of the Tingsha group of villages, who has been with the Myitkyina column since they passed his village) and the Maiteng headman returned from Paukong, 2 miles this side of Sabaw, whither they had been sent to gain information. They sent on the Paukong headman to Sabaw and he brought them the following news. Sabaw Mitwe has burst his big gun (made of wood) practising; he is also practising with small-arms at a target. He threatened to kill Kauri if he came near him, and says he is going to fight and is building stockades.

*21st.*—Went to the top of Paugawpum, A.B. 2,600. Very fine view of country round. Could see the river (Mali-kha) at different points as far as the confluence. Mr. Benson kindly did me a sketch of the country looking south.

*22nd and 23rd.*—Halt.

*24th.*—Lieutenants Wallis and Parsons arrived from N'dau with the rations. Had a shower of rain at 4 P.M.

*25th.*—Combined columns marched to camp Ingip-kha, 5½ miles. Started 8 A.M. Passed through Malan, two houses, at 8-30. Arrived camp on left bank Ingip-kha a quarter mile from where it empties itself into the Mali-kha. Moderately thick jungle, which had to be cut down to form camping-ground. Five natives of India were murdered close by here three years ago. The Kachins say they had kukris, so they were possibly Gurkhas. This was done to pay off a "debt" by the Wareikon headman. The facts are briefly these. Some 20 years ago an Englishman (presumably Marjory) was murdered at Momein, and the British Government demanded that his murderers should be brought to justice. Forty



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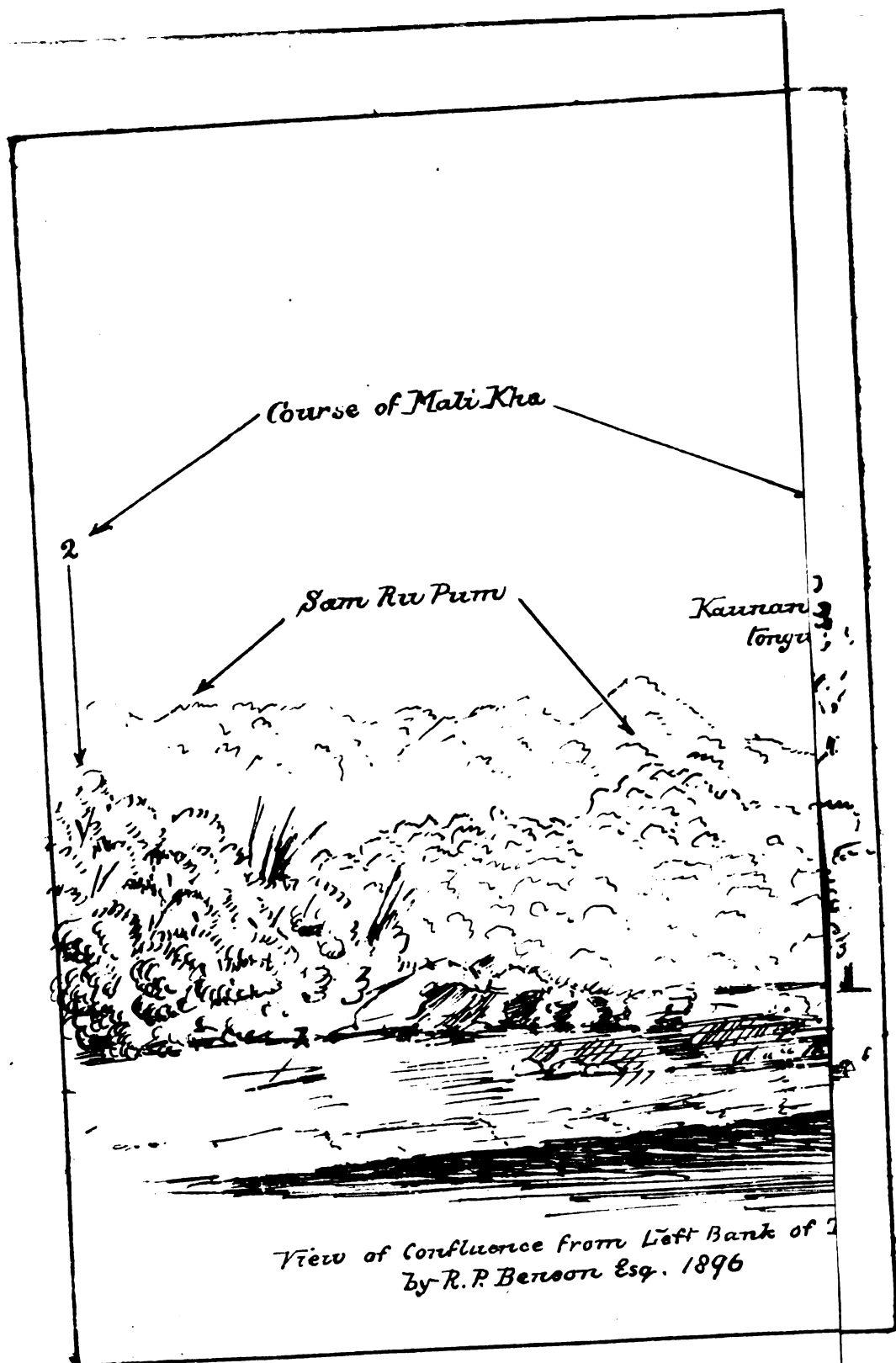


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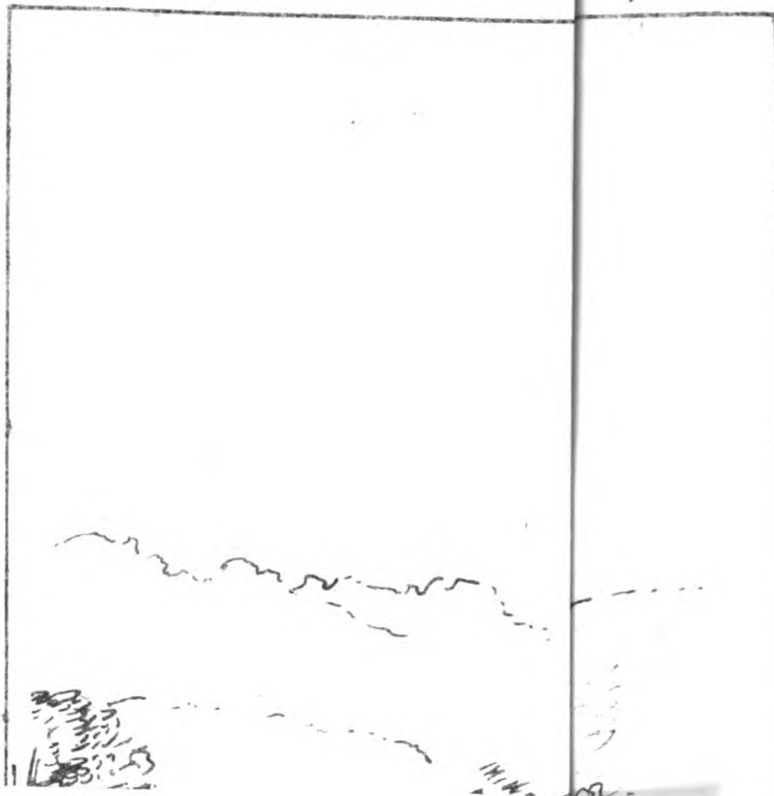


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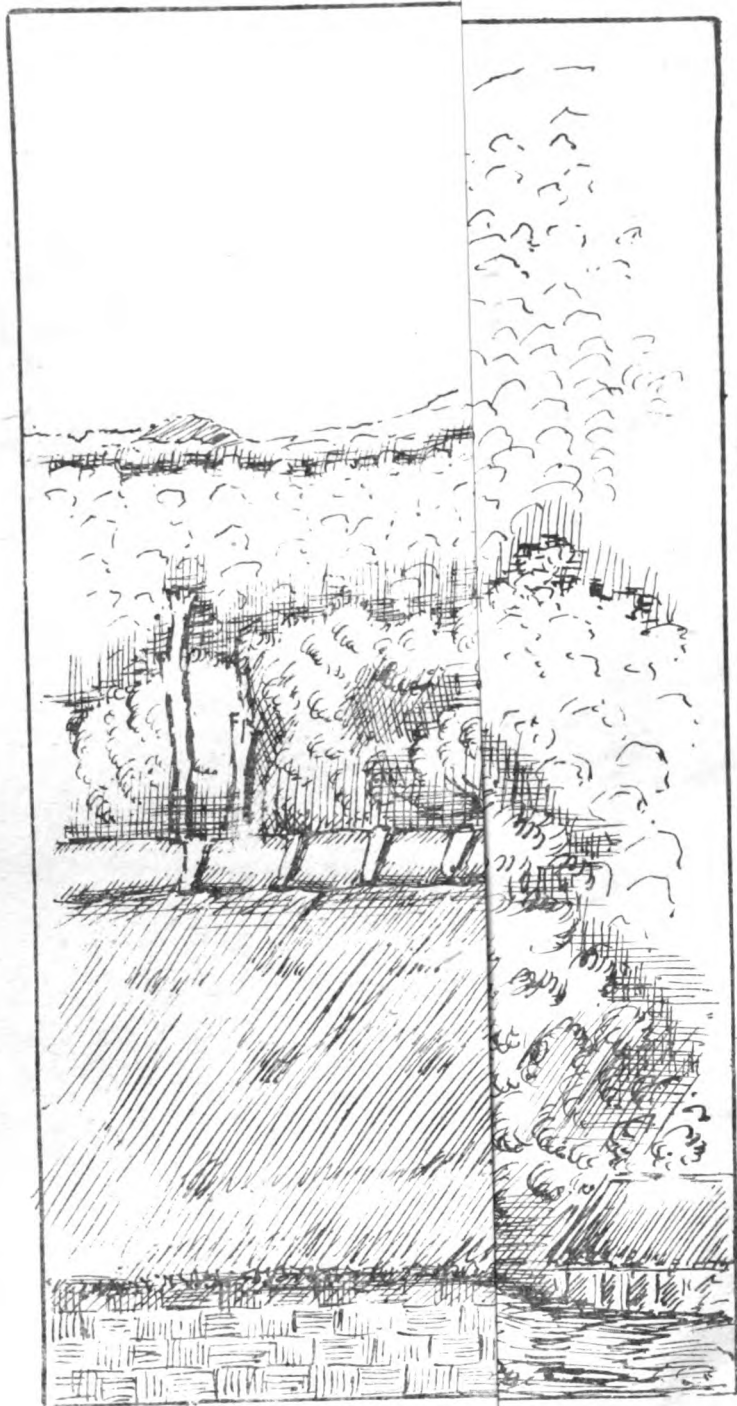


NOTE.—*This view sketched to be read from 1 (1*



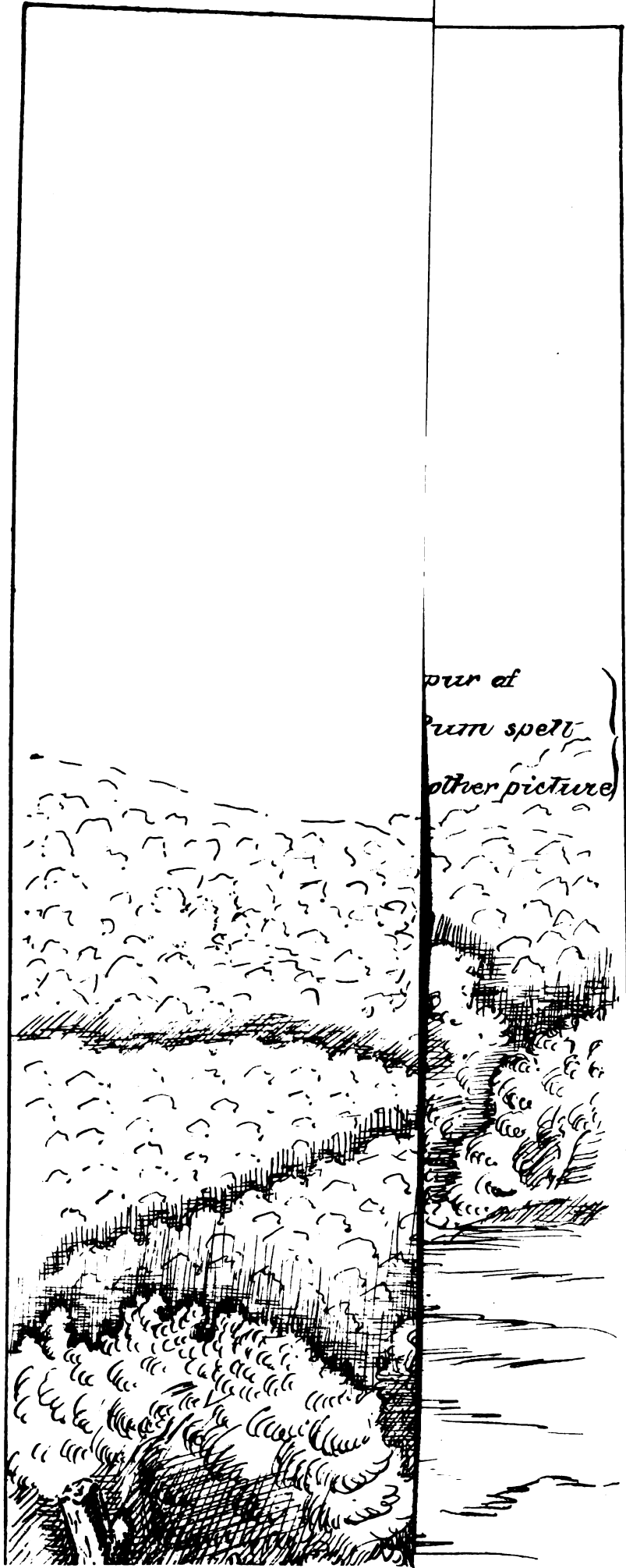
*From top of Sabaw village  
by H.B. Benson*





P.W.O. Hussara

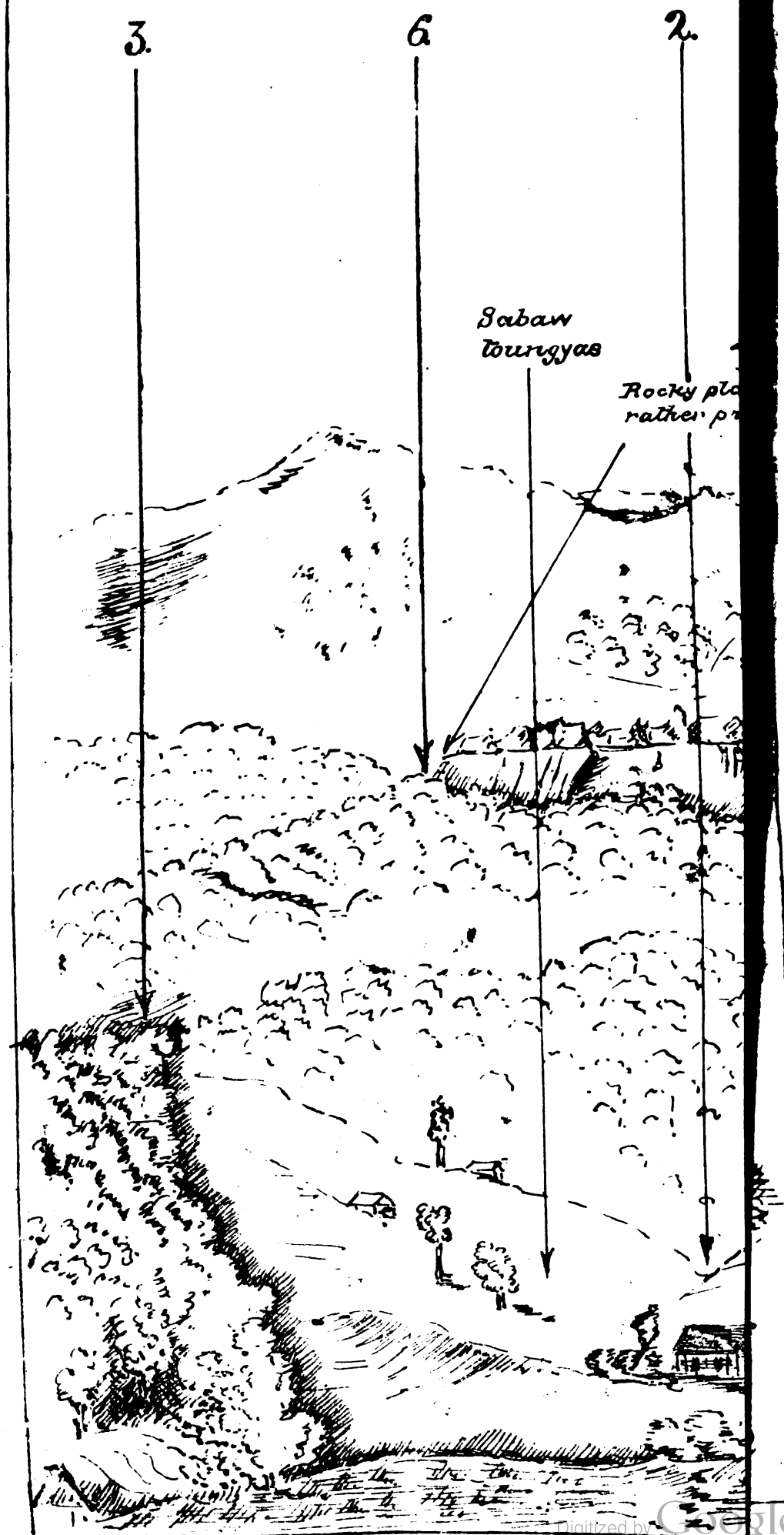




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*The numbers*



or fifty Kachins being at Momein at this time selling amber, among them the Wareinkon headman (since dead) and a man who lives now at Ritpong, the Chinese confined them and executed all except three, who escaped, among whom were the two above mentioned. This constituted the blood-feud, to settle which the "Kalas" were murdered.

26th.—Marched Paukong, 3 miles  $3\frac{3}{4}$  furlongs. Started 8 A.M. Passed through Wasa and reached Paukong at 9-50. Good camping-ground north of village. Plenty of grass and water. Found some Szis here from Nawshon-Masakon, half a day's march east of Sadon. Musa-chya-yong, the Sawbwa, had come over to marry Paukong Tang's daughter. They are dressed in blue clothes and look more like Shans than Kachins.

27th.—Marched to Sabaw, 2 miles. Started 8 A.M., Myitkyina column leading, followed by Mogaung column and guns. Transport and baggage were left in Paukong. After proceeding about a mile several shots were fired at the advanced party and a sepoy was carried to the rear badly wounded. Firing only lasted two or three minutes and we continued our march to Sabaw without further opposition. A large stockade quarter mile from village was shelled, but found to be unoccupied. On reaching the village a shell was fired at the nearest house, but the inhabitants were not at home. Several hundred baskets of paddy were found in the village and about a thousand more in the taungya huts. Sabaw village is a mile from the Mali-kha; the old village was on the banks. Good camp and plenty of grass and water. Transport was sent for and arrived later on.

28th.—Halt. The wounded Gurkha died 3 A.M. Three parties of 50 men each were sent out at 9 A.M. to hunt through the jungles, but did not succeed in finding anybody.

29th.—Halt.

30th.—Halt. Very wet day.

31st.—Halt. Rained during the night. A party under Lieutenant Chesney marched to Matong-yan beyond Paukong and back.

1st February.—Halt. A party under Lieutenants Cruddas and Parsons proceeded to Paugaw to fetch rations.

Orders came by helio for the Myitkyina column to halt at Sabaw for the present and for the Mogaung column to return *via* Sachi and Kaisu Mitwe's village (N'bung-kong) to Mogaung.

As I want to sketch and report on the road along bank of Mali-kha to Lapye, I am going down with convoy tomorrow.

2nd.—Marched to camp at mouth of Insop-kha, distance  $10\frac{1}{2}$  miles.

Started from Sabaw 8-30 A.M. with Surgeon-Captain Strickland and Mr. Benson, 75 rifles and 270 mules, most of which were unladen.

Heavy rain until we reached Wasa. Arrived at our old camp on Ingip-kha at 12, Wareinkon 1-45, and Insop-kha 4 P.M. A very trying march on account of the greasiness of the roads. We had to halt continually to allow the transport to come up.

A very good camping-ground on sand on left bank of Insop-kha close to mouth. Room here for a brigade. More rain during the evening.

Mali-kha is here about 150 yards broad, with very rocky banks, and apparently very deep.

3rd.—Marched to camp on Wasi-kha,  $6\frac{1}{2}$  miles. Started 7-15. For the first mile the road is much overgrown and delayed us not a little. It lies along the right bank of the Mali-kha and is better than I expected to find it from what I had heard. Reached the mouth of the Pungin-kha at 12. It is here about 35 yards broad and the depth varies owing to the bottom being of large rocks, but average depth is about 3 feet. It is extremely rapid and several mules got carried off their legs by the force of the current. Even a slight rise would make it impassable for transport except by bridging.

Arrived camp on Wasi-kha at 2-30. Camped in bamboo jungle, fairly open.

4th.—Marched to Lapye,  $7\frac{1}{2}$  miles. Started 7, arrived 12. Road is good, and for the last 4 miles lies along bank of Mali-kha from 100 to 400 yards off. Had a very good view of the confluence. Mr. Benson, who rowed up to the

actual point where the two rivers meet, told me that there appears to be a much greater volume of water from the Mali than from the N'mai-kha.

We met the mail being carried by coolies about 3 miles from Lapye and got our letters.

Loaded rations on saddles in the afternoon. Captain Turner, Military Police, has gone down to Myitkyina. The post here is garrisoned by 50 men and is of the usual type met with north of Bhamo.

5th.—Started 8-45 on our return journey to Sabaw, Mr. Benson going on to Myitkyina.

Arrived at our camp on Wasi-kha 1-30,  $7\frac{1}{2}$  miles.

6th.—Marched camp Insop-kha,  $6\frac{1}{2}$  miles. Started 7-5 and got in at 1-30. This is a very trying march, especially with a large convoy of laden mules. The path is bad and small rivulets with high rocky banks are crossed at short intervals. In crossing the Pungin-kha many of the mules were again carried off their legs by the force of the current, and rations of course got wet. Loads were in some cases recovered with great difficulty. The approach on the left bank is particularly steep and rocky and extremely difficult for transport. Most of the mules were very done up by the time they reached camp. Coal was found on the bank of the river here.

7th.—Marched Sabaw,  $10\frac{1}{2}$  miles. Started 7-15 and got in at 1-45.

This march is trying for transport as the hill up to Wareinkon and that from Ingip-kha to Wasa is long and steep.

Beyond Wareinkon we fell in with a party of signallers on their way from Paugaw to Sabaw. At 5 today the Sup-kha headman arrived and reported that the Sabaw Mitwe, who is at Masupyan, his (Sabaw's) father-in-law's village, came down to his village with a party of men, upbraided him with coming in to us, and pointed his gun at him. He wants us to try and catch Sabaw at Masupyan, which is easier said than done. He reports the road between here and Sup-kha blocked by felled trees.

8th.—Halt. Party proceeds to Sup-kha tomorrow. I accompany it.

9th.—Party of 50 rifles, Mogaung Battalion, under Lieutenants Chesney and Wallis, 50 rifles, Myitkyina Battalion, under Lieutenant Cruddas, Mr. Chapman, Surgeon-Captain Pinto, and myself marched to Sup-kha,  $6\frac{3}{4}$  miles. Started 7-0. When we arrived at the Maija-kha about half-way, we found the path, which lies along its bed, blocked by trees and branches piled across it. We consequently had to cut path round through jungle, which delayed us half an hour. Beyond an occasional tree across the path, we found nothing more to retard our progress. Arrived at Sup-kha 2-30.

Rather a confined camp in village.

The headman of Parorjau (Dukap Tang), who has three other villages under him, came in and volunteered to lead our column as far as the Daru-kha, which is a short distance this side of Masupyan, where the Sabaw Mitwe is staying.

10th.—Leaving party of 20 rifles to guard camp, we started 7-30 with 80 rifles and four boxes spare ammunition on mules. A fatiguing march up and down hill the whole way. We reached Parorjau,  $2\frac{1}{2}$  miles, at 9-45. The headman would not guarantee our not being fired at by Sabaw's men, so flanking parties were sent out at every difficult-looking place. We, however, reached Masupyan 11-30 without opposition, having crossed the Daru-kha at the point where the Daman-kha flows into it, half a mile before arriving at the village. This is a charming river, 70 yards broad here and 3 feet deep, with a firm sandy bottom.

Shortly after entering village two shots were fired some distance off, probably as a signal. We had breakfast and burnt the village. Started back at 1-0. Arrived at Sup-kha 4-30 without a shot being fired at us. Total distance  $8\frac{1}{2}$  miles.

11th.—Halt at Sup-kha. Had a heavy shower of rain early this morning. Convoy arrived from Sabaw 4 P.M. with three days' more rations.

12th.—Halt. Heard that Major Atkinson is seriously ill and unconscious.

Saw a woman with goitre here today. The first case I have seen since we started.

13th.—Marched Sabaw,  $6\frac{3}{4}$  miles.

It rained very hard early this morning and continued till 12 o'clock. We started at 9 and got in at 3. Road very muddy and slippery. A very trying march.

Found Major Atkinson very seriously ill with fever and congestion of the brain. Rafts are in course of construction to convey him and sick sepoy down to Myitkyina.

14th.—Major Atkinson was carried down to the raft and started with Surgeon-Captain Pinto in charge for Myitkyina. Another raft with 12 sick sepoy on board started at the same time.

The combined columns marched to Paukong. We burnt Sabaw before leaving.

Heard at 5 P.M. that the raft with sepoy on board had struck on a rock and was in a very dangerous position near Ingip-kha. Lieutenant Parsons left to try and get it off.

15th.—Halt Paukong.

Heard with deep regret at 12 noon that Major Atkinson died at 10-30 this morning on board the raft. The other raft was got off this evening.

It rained hard all day.

16th.—The two columns separated today (see Lieutenant Cruddas' diary). It rained hard early this morning and continued till 12 o'clock.

I accompanied Mogaung column to Shangyan,  $4\frac{1}{2}$  miles. Started with rear-guard 11-45 and got in at 4. It rained hard again in the evening, and at 10 P.M. we had a slight thunderstorm and heavy rain and hail.

Camp on disused taungya a quarter of a mile from village. Water and grass plentiful.

17th.—Marched Tinkrai,  $4\frac{3}{4}$  miles.

Heavy rain early this morning. Started 9-30 and got in at 1-0. Road on the whole good and fairly level along the top of the ridge, but very wet and greasy. It rained again directly we got into camp. A mule died of exhaustion on the road. Good level camping-ground in village. Grass plentiful, but water limited in quantity (trickling from a bamboo).

18th.—Halt on account of bad weather.

19th.—Halt on account of bad weather. Very heavy rain all night and early this morning. It recommenced at 3 P.M. and lasted nearly all night. The camp is a perfect swamp.

Got a route to Borkhampti from Kauri headman; he has been up there himself.

20th.—Marched N'long-galeng,  $4\frac{1}{2}$  miles.

A fine morning. Started 8-40. Fairly good road along ridge. Large taungyas are crossed a mile from N'long-galeng, on which is the village of N'Krang, two houses. A very fine view is obtained from here. Arrived 12.

Gazetted Lagya-Lepai and Sampaung-Lepai villages. Lagya is a sub-tribe which is not mentioned in the *Kachin Gazetteer*.

Had rain at 3 P.M.

A confined camp and water scarce.

21st.—Marched Taikri,  $4\frac{1}{4}$  miles. Started 8-30. Path descends for 600 feet to Konglu, which was reached 9-15.

Continues down hill to Dinong-kha, which is here 20 yards wide by 2 feet deep. At this point there is a large bamboo fishing-trap right across the stream. The ascent from this stream to Taikri is most precipitous, and no transport but mules would be able to negotiate it at all. Paths had to be frequently cut to circumvent the steeper parts and transport did not arrive till 4 P.M. Lieutenant Chesney intended pushing on to Waga today, but was unable owing to the mules being so done up and arriving so late.

Camp in village. Water very scarce.

From taungyas south of village Loi Lem, Paugaw, and N'dau plainly visible, also the villages of Waga, Khraddu, Tingpai, N'pang, Wala, Sanyong, Walu, Katawnong, Selan-Khayon, Sinpong-N'kat.

22nd.—Marched Waga, 2 miles along ridge.

Had slight fever in afternoon, probably in consequence of the bad weather. Camp in village. Grass and water plentiful.

23rd.—Halt. Gazetted villages. Sachyi and Waga have got to pay up their fine.

24th.—Halt. Had fever all day, but got better in the evening. We saw the sun today for the first time for about a week. It was very welcome.

25th.—Halt. I took a small escort and went to Sachyi, half a mile on. Put in the map the sources of the two rivers Niyang-kha and Diyang-kha, which, with the Dinong-kha, combine to form the Insop-kha. Got a route from here to Hukong Valley from Sachyi headman as follows:—

- (1) Pasilawan, 8 hours' march.
- (2) Lagyi-kha, a short day's march.
- (3) Darunumta, a long day's march.
- (4) Sinkai, a long day's march.
- (5) Emerges into Hukong Valley.

There is no good route from here to Khampti except by way of Paukong.

26th.—Halt Waga.

27th.—Halt Waga on account of very wet morning.

28th.—Marched camp on Niyang-kha, 11 miles 3 furlongs. Started 7 A.M. Passed through Sachyi, five houses, which stands high and is steeply approached, especially from west. Passed through Kawnan, 6 houses. Crossed Diyang-kha, 15 yards by 2 feet. Passed through upper village of Selankhayan, 10 houses. Halted on Niyang-kha close to lower village of Selankhayan. The villagers helped us to clear thatch grass to form camp. They brought in an old man with cataract in both eyes and a boy with a very enlarged spleen, thinking our doctor could cure them. They would, however, not accompany us to Mogaung to be operated on. River here 30 yards by 1 foot 6 inches and is evidently the chief river forming the Insop-kha.

There was an eclipse of the moon about 12 midnight.

29th.—Marched to Ritpong, 5½ miles. Started 7 and got in 10-30. Passed through Mashaw. Camped in village. Spacious camping-ground and water and grass plentiful. This is on the rubber route between Myitkyina and the Hukong Valley. Got this route confirmed (*see* Routes), also an alternative route south, namely:—

From N'Koi—

- |                   |                  |
|-------------------|------------------|
| (1) Pungsi Marup. | (4) Kawlanyan.   |
| (2) Wataitu.      | (5) N'Konyan.    |
| (3) Maru N'tap.   | (6) N'Bieng-kha. |

This said to be a very steep and narrow route and very rocky. Mules cannot go this way. The men of Kaisu Mitwe's village came in to try and get out of paying their fine.

March 1st.—Marched to Pouktum, 8 miles. Started 7-0 along the road used by the rubber traders, as far as Sana—a very good road for the Kachin Hills. After reaching Sana we proceeded by our old route *via* Wesè to Pouktum, which we reached 11-40. Good camp and plenty of water and grass.

2nd.—Halt. A party of 75 rifles under Lieutenant Wallis with Mr. Chapman went to N'Bongkong, 3¼ miles north of this. This is Kaisu Mitwe's village. The party burnt his and two other houses.

3rd.—Marched to Panlang, 5½ miles. Started 7-40. Passed through Lekren, six houses, at 8-35. Saw a woman weaving silk here, also several trays of large silk-worms, as well as some cocoons of unwound silk.

Passed Kraduga 9-10 and arrived Panlang 10 A.M.

A party under a Native officer with empty mules was sent from Pouktum to N'dau this morning to fetch the rations that had been left in that village, and bring them on here.

Saw a Kachin funeral here this afternoon. The body, that of a woman, was brought out of the house in a coffin, carried a few yards off, and placed under a thatched shelter inside the village. It will be removed later on when the grave outside the village is prepared. While this was going on, guns were fired outside

the house (to drive off the nats), and somehow or other a spark must have set fire to the roof of the house, which began blazing up. We luckily just managed to extinguish the flames in time to save the house by sending Gurkhas on to the roof with water.

*4th.*—Lieutenant Chesney, Mr. Chapman and self with 50 rifles marched to Maran Tingput (Sinein Wa's village). Started 7; arrived there 8-30. Found no inhabitants there. Burnt the village, Sinein Wa having been chief instigator of the attack on Myitkyina in December 1892. The villages of Kautonpum and Kawlanpum in the same group are both visible from here. Returned to Panlang 10-30. Sinein Wa's nephew had sent word to us that if we burnt the village he would have a shot at us, but he apparently thought better of it and did not.

Party arrived from N'dau with the rations.

*5th.*—Marched to camp Peli-kha, 7 miles 1 furlong. Started 7 and arrived at our old camp on Peli-kha at 11-30.

*6th.*—Marched to camp on Samngum-kha, 8 miles 2 furlongs. We passed our old camp on Maru-kha on the road. Started 7 and arrived camp 12-10. This was a very unpleasant camp on account of the leeches. We had a heavy thunderstorm at 6 P.M.

*7th.*—Marched to camp on Gawa-kha, 6 miles 1 furlong. Started 7 and arrived 10-45. A very pleasant camping-ground in thin tree jungle.

*8th.*—Column halted. Started with Lieutenant Wallis, Mr. Chapman, and 30 rifles at 7 A.M. After a stiff climb reached H'paukchan in Kumôn range, 1,100 feet above our camp at 8 o'clock.

N'Khum is about a mile north-east of H'paukchan. On approaching the village 10 men were taken on with the object of surrounding the house of Sakri Kung, who was wanted for murder. He had, however, made good his escape. These villages are under the headman of Nanti and within our jurisdiction. Returned to camp at 9.

*9th.*—Marched Namkham,  $7\frac{1}{2}$  miles. Good large camp on banks of Namkham chaung.

*10th.*—Marched camp on Nanti chaung, 7 miles.

*11th.*—Marched Pinka, 8 miles. We found the embankment thrown up for the railway in course of construction as far as 4 miles from Mogaung. The difference in the country between Mogaung and Nanti is very marked from what it was in December. Then high kaing grass obstructed the view, but now it is all burnt and one can see for miles across the level plain as far as the hills.

### III.—DIARY OF LIEUTENANT CRUDDAS.

Diary of Lieutenant H. W. Cruddas, 38th Dogras, Myitkyina Battalion, Burma Military Police.

*17th December.*—Marched at 9 A.M. in charge of baggage; arrived at Naunglin at 3 P.M.; distance  $6\frac{1}{2}$  miles. Road good. Two nullahs crossed which caused a little difficulty.

Camp between Shan village Naunglin and Kachin village of Watu. (This village should not be confounded with Watugyi just below Lapye.) The two villages of Watu and Naunglin are about 40 yards apart.

*18th.*—Marched at 8 A.M. to camp on left bank of Mawme chaung; distance 10 miles. A small stream with steep, high banks, the crossing of which occasioned considerable delay.

There are several streams between this and last camp, none of which present any difficulty.

A clearing had to be made for camp here as there is no village.

*19th.*—Marched at 8 A.M.; arrived at Lapye 10 A.M.; distance 5 miles.

Found Captain Turner, Military Police, here in command of the new post which is now in course of construction; 50 men of the Reserve Battalion compose the garrison. Here 50 men of the Myitkyina Battalion, who had been relieved by 50 men of the Reserve Battalion a few days previously, were taken on the strength of the column, bringing it up to a total of 260 rifles.

*20th.*—Halt. Colonel Peile, Major Atkinson, and Mr. Martini arrived at 10 o'clock from Myitkyina.

*21st.*—Column marched at 7 A.M.; arrived at camp on Wasi-kha at 1 P.M.; distance 6 miles. Camp in bamboo jungle surrounded on all sides by Wasi-kha and a branch of this stream. A bitterly cold camp.

*22nd.*—Marched at 7-35 A.M.; arrived at camp on left bank of Pungin-kha at 12 noon; distance 5 miles. Camp in tree jungle, which had to be cleared. The Kauri headman with another Kachin was brought in in the evening by the Maingna thugyi.

*23rd.*—Marched at 9 A.M.; arrived at N'dau at 2 P.M.; distance 4 miles. A stiff pull up-hill. Passed half-way through the village of Kauri.

*24th.*—Halt. There is a rumour that Sabaw is going to fight and is getting men from east of Mali-kha to help him. This is probably false. Nobody in from Maiteng yet. The building of the temporary post was commenced today.

*25th.*—Halt. N'dau Metankong came in in the evening.

*26th.*—Halt. Men employed building post.

*27th.*—Party of 100 rifles under Captain Newbold and myself marched at 8 for Panlang, which we reached at 1 A.M., passing through the villages of N'dau Metankong and Kara. Met the Mogaung column at Panlang.

*28th.*—Halt at Panlang.

*29th.*—Marched at 8 and arrived at N'dau at 12-15. Lieutenant Wallis and Lieutenant Turner (Intelligence Officer) and Mr. Chapman accompanied us.

*30th.*—Convoy of 100 mules and 20 rifles went down to Lapye for rations.

*31st.*—Lieutenants Wallis and Turner and Mr. Chapman left for Panlang this morning.

*1st January.*—Halt.

*2nd.*—Halt. We heard that the Wawangs were going to help the Sabawt Mitwe, one of whose wives belongs to that tribe.

*3rd.*—Marched at 9-30 with baggage for Katanyan; arrived 1-30; distance  $6\frac{1}{2}$  miles. Camped in village. A Native officer and 40 men were left at N'dau post.

*4th.*—Marched at 8-30; arrived Maiteng 10 A.M., distance 3 miles. Passing on the way the Lepai village of She-u-yan, found Maiteng deserted. Camped on a ridge 80 feet below the village, of which two houses were in the centre of the camp.

*5th.*—Marched at 8 A.M. with a convoy of mules and 100 rifles to N'dau; arrived at 2 P.M. Got into signalling communication with Lieutenant Nethersole, Commanding the Sima escort, who was at Mara, 2 miles from the Lechennoi ferry, also with the Mogaung column at Batwi.

*6th.*—Halt. Established signalling communication with Maiteng from a point about one mile north of N'dau camp.

*7th.*—Halt.

*8th.*—Halt. In the evening at 7 took a small party down to the Pungin-kha and returned with Mr. Benson, a globe-trotter. Arrived at N'dau at midnight.

*9th.*—Marched at 9 and arrived at Maiteng at 2-40.

*10th.*—Halt. Some of the Maiteng people came in.

*11th.*—Halt.

*12th.*—Northern picquet of camp about 60 yards distance from front face was fired into just before daylight. Fire was returned at once from the picquet and all the men turned out immediately without any noise or confusion. Kachins were heard by men in picquet shouting and cutting down trees in the jungle about 50 yards off. Two parties of 25 men each were now sent out into the jungle, each under a Native officer, to work right and left and to meet in the taungyas to the north of and below the village. The right party on their return said they had seen a few Kachins, one of whom appeared to be wounded as the others were dragging him along. They fired at them. Captain Newbold, on the return of these parties, was sent out with a party of 75 rifles and followed the road by which the Kachins had fled as far as the Insop-kha (about  $1\frac{1}{2}$  miles). Evidences of their hasty retreat were three guns and four das, which were found close outside the picquet.

Captain Newbold returned at 1 P.M., having seen no traces of the enemy beyond the guns and *das* abandoned in their flight and some rosettes of wood-shavings with which they had adorned their *da-hoops*. Simultaneously with their attack on the northern picquet, the Kachins fired a few shots from the south-west of the camp and about 500 yards distant. The road here was afterwards found to have been panged.

13th.—Took out a party of 60 men to reconnoitre towards Kachyan. Found on an island in the Insop-kha and on its bank the ashes of about 36 camp-fires, which evidently marked the halting-place of the Kachins the night before the attack. Passed through the villages of Nongyan, Pauchang, and, after crossing the Dinong-kha (on the right bank of which was a salt-well and kitchens), got within 2 miles of the village of Kachyan. The ascent from the Dinong-kha towards Kachyan is exceedingly steep and is used as a shoot for logs used as fuel in the salt kitchens. Returned to Maiteng in the evening and found the Mogaung column had arrived.

\* \* \* \* \*

16th February.—Separated from the Mogaung column and marched to the Ingip-kha. Heavy rain. Camped on our old camping-ground.

17th.—Column halted to try and save the remainder of the sepoys' kits, &c., from the raft which had been wrecked.

18th.—Raining again. Column marched to Insop-kha, 6 miles. Self with 40 mules and party proceeded to Paugaw and withdrew men of temporary post, arriving in camp Insop-kha at 8-30 P.M.

19th.—Halted Insop-kha. Built bridge over this river, which is in flood and impassable for laden mules.

20th.—Fine weather again. Marched to Pungin-kha, 3 miles, which we found impassable. Rafts were constructed, but as only small bamboos could be obtained, this mode of crossing was only tried once, resulting in the capsizing of the raft with its freight, and was abandoned for the safer and more stable means of a bridge. This was made by throwing logs from rock to rock, supporting them in the broadest part by rough trestles. A path was cut through the jungle, along which the mules were driven to the end of the bridge; here their loads were taken off and untied, being carried over to the camp on the right bank by the sepoys and Chinamen. A very hard day's work was finished at 8-30 P.M.

21st.—Marched at 10; arrived Tangpye-kha,  $7\frac{3}{4}$  miles, at 3 P.M.

22nd.—Marched 9 and camped a mile beyond Lapye,  $4\frac{3}{4}$  miles, at 12 noon. Rained again in the afternoon.

23rd.—Marched 7-30 and arrived at Naunglin 12-20; distance 14 miles.

24th.—Marched 7 A.M. and got in at 9-30 to Myitkyina.

#### IV.—NOTES ON THE SANA KACHIN COUNTRY.

THE tract of country inhabited by the Sana Kachins lies roughly speaking between latitude  $25^{\circ} 15'$  and  $26^{\circ} 10'$  and longitude

Physical features.

$97^{\circ}$  and  $97^{\circ} 30'$ , and is bounded on the west by the Kumôn range, with its peaks 6,000 or 7,000 feet high, running nearly due north and south, and on the east by the Mali-kha. It is therefore the southern portion of the "valley" mentioned by Lieutenant Blewitt and quoted in the *Kachin Gazetteer*, Chapter I, 6.

Viewed from any coign of vantage the country is seen to be covered with dense jungle as far as the eye can reach, relieved only by the brown patches dotted here and there, which are the clearings made annually by the inhabitants for the cultivation of the paddy which forms their principal article of diet.

In travelling through the country this jungle is found to vary considerably in quality and density. At the lower elevations, in the valleys, and on the banks of streams large trees and thick undergrowth predominate, while at a greater elevation thin bamboo jungle and little or no undergrowth, with occasional patches of kaing grass, is more usually met with. The bamboo, however, is found everywhere in more or less profusion, and large clumps are always to be seen in and around

*20th.*—Halt. Colonel Peile, Major Atkinson, and Mr. Martini arrived at 10 o'clock from Myitkyina.

*21st.*—Column marched at 7 A.M.; arrived at camp on Wasi-kha at 1 P.M.; distance 6 miles. Camp in bamboo jungle surrounded on all sides by Wasi-kha and a branch of this stream. A bitterly cold camp.

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\* \* \* \* \*

16th February.—Separated from the Mogaung column and marched to the *Ingip-kha*. Heavy rain. Camped on our old camping-ground.

17th.—Column halted to try and save the remainder of the sepoys' kits, &c., from the raft which had been wrecked.

18th.—Raining again. Column marched to *Insop-kha*, 6 miles. Self with 40 mules and party proceeded to *Paugaw* and withdrew men of temporary post, arriving in camp *Insop-kha* at 8-30 P.M.

19th.—Halted *Insop-kha*. Built bridge over this river, which is in flood and impassable for laden mules.

28th.—Fine weather again. Marched to *Pungin-kha*, 3 miles, which we found impassable. Rafts were constructed, but as only small bamboos could be obtained, this mode of crossing was only tried once, resulting in the capsizing of the raft with its freight, and was abandoned for the safer and more stable means of a bridge. This was made by throwing logs from rock to rock, supporting them in the broadest part by rough trestles. A path was cut through the jungle, along which the mules were driven to the end of the bridge; here their loads were taken off and untied, being carried over to the camp on the right bank by the sepoys and Chinamen. A very hard day's work was finished at 8-30 P.M.

21st.—Marched at 10; arrived *Tangpye-kha*,  $7\frac{3}{4}$  miles, at 3 P.M.

22nd.—Marched 9 and camped a mile beyond *Lapye*,  $4\frac{3}{4}$  miles, at 12 noon. Rained again in the afternoon.

23rd.—Marched 7-30 and arrived at *Naunglin* 12-20; distance 14 miles.

24th.—Marched 7 A.M. and got in at 9-30 to *Myitkyina*.

#### IV.—NOTES ON THE SANA KACHIN COUNTRY.

THE tract of country inhabited by the Sana Kachins lies roughly speaking between latitude  $25^{\circ} 15'$  and  $26^{\circ} 10'$  and longitude  $97^{\circ}$  and  $97^{\circ} 30'$ , and is bounded on the west by the *Kumôn* range, with its peaks 6,000 or 7,000 feet high, running nearly due north and south, and on the east by the *Mali-kha*. It is therefore the southern portion of the "valley" mentioned by Lieutenant Blewitt and quoted in the *Kachin Gazetteer*, Chapter I, 6.

Viewed from any coign of vantage the country is seen to be covered with dense jungle as far as the eye can reach, relieved only by the brown patches dotted here and there, which are the clearings made annually by the inhabitants for the cultivation of the paddy which forms their principal article of diet.

In travelling through the country this jungle is found to vary considerably in quality and density. At the lower elevations, in the valleys, and on the banks of streams large trees and thick undergrowth predominate, while at a greater elevation thin bamboo jungle and little or no undergrowth, with occasional patches of *kaing* grass, is more usually met with. The bamboo, however, is found everywhere in more or less profusion, and large clumps are always to be seen in and around

every village, the inhabitants being very averse to having them interfered with. With the exception of the Kumôn range, which forms a natural barrier between the Sana country and the Hukong Valley, and the N'kai Pum, 30 miles north of Myitkyina, no ranges with an elevation of over 3,000 feet above sea-level are met with, the most important being the Pi Pum range, 2,500 to 3,000, running nearly due north and south some 14 miles west of the Mali-kha and north of the Nkai Pum, and the Pum Wai Pum still further north and running north-west and south-east, along which the Mogaung column marched on its return journey from Sabaw. The average elevation of this range is from 2,000 to 2,500 feet above sea-level.

The remainder of the country visited consists of what may be termed very "broken country;" low steep hills and narrow valleys, through which flow small rocky streams with high and overgrown banks, which all discharge themselves eventually into the larger rivers, namely, the Pungin-kha and the Insop-kha. These two rivers rise in the Kumôn range and empty themselves into the Mali-kha within 6 miles of each other a short distance north of the confluence. The country unvisited by us to the north has much the same appearance, as far as one could see, the Pumplumbum range being the only hills of any height. To the north-east and very far distant, in fact only just visible, is a lofty range, probably snow-topped, the name of which is unknown to the inhabitants of the Sana country.

The country is fairly thickly populated, the inhabitants consisting chiefly of the Marip, Lataung, and Lepai tribes of Kachins. Population. N'Khums and Marus were also met with occasionally.

The people are as a rule divided into groups, several villages being subordinate to the headman of the principal one. In some cases, however, republican villages were found, such as Panlang for instance, with a headman who only had authority over his own village.

The principal groups are as follows:—

				Villages.
Pouktum (Lepai Numwon)	...	...	...	7
Ledan (Lepai)	...	...	...	12
Tingsha (Sana-Lataung)	...	...	...	13
Krashaka (Sana-Lataung)	...	...	...	7
Mawyan (Sana-Lataung)	...	...	...	4
Nongyan (Sana-Lataung)	...	...	...	7
Salaw (Lataung)	...	...	...	6
Kadaw (Lataung)	...	...	...	5
Lagya (Lepai)	...	...	...	11
Khamai (Marip)	...	...	...	15
Nung (Lepai)	...	...	...	4

Of these 4 are Lataung villages and 1 Maru.

Three are Lepai, 1 Maru

These villages rarely consist of more than 10 houses and more generally of five or six. The largest village we visited was Sirin, one of the Mawyan group, which has 22 houses (*see* Gazetteer of Villages). The country immediately north of the Pum-waipum range is said by the Kachins to be very thickly populated, but we were unfortunately not allowed to visit it.

The manners and customs of the Kachins are so well described in the *Kachin Gazetteer* that it is unnecessary for me to say anything on this subject, but I may be allowed to state that the Sana Kachins appear rather a clean lot than others I have seen, especially those in the hills around Sima. This was especially noticeable at Waga and Sachyi, where they also struck me as being rather a better-looking lot than usual.

## V.—FLORA AND FAUNA.

THE following trees were met with:—

Wild cinnamon, walnut, India-rubber, lemon, lime, mulberry, wild-betel, jujube tree, thadi (Burmese), a very hard wood, jack fruit, pipul, banyan, wild-fig, a kind of palm from the leaves of which Gurkhas make combs (thakro) for their women.

Kainjal (Gurkhali), a tree from the bark or leaves of which the Gurkhas prepare a medicine for dysentery or diarrhœa, which, they say, is as good as the decoction made from bael fruit.

Rangbang (Gurkhali), a tree of the palm species from inside the outer bark of which excellent tinder is obtained. The wood is used by the Kachins for shafts of spears, &c. The core of the young shoots is sweet to the taste.

Bamboos of several kinds, of which the Gurkha names are—pilling, phereng, gopi, mal, choya, tangwa. I unfortunately could not get the English names for these.

Cane, the leaves of which are used for thatching.

Rattan canes. Opium, brinjals, wild-tea, indigo, mustard, cotton, sweet or Spanish potato, castor-oil plant, chillies, tobacco, paddy, Indian-corn, marua (Hindustani), *Artemisia vulgaris*, a plant from which liquor is made by the Gurkhas and called by them "khodo."

Tigers and leopards abound and their marks were frequently seen. They are often shot by the Kachins, who bring their skins into Myitkyina and Mogaung and claim the reward—Rs. 40 for a tiger and (I think) Rs. 20 for a leopard. Marks of elephant were seen between Lagyara and Paurau on the 5th January, but I do not fancy they are as plentiful as in the plains and on the banks of the Irrawaddy.

Fauna.

Wild-pig and porcupine were seen.

Sambhur marks were abundant and one or two barking-deer were shot.

Jungle-fowl were found everywhere, and the carlidge and peacock pheasant ; also marks of peafowl were seen on the banks of the rivers. The rhinoceros is said to inhabit the Kumôn range.

# VI.—GAZETTEER OF VILLAGES.

Serial No.	Name.	Headman.	Tribe.	Clan.	To which sub-ordinate.	Subordinate thereto.	Houses.	Population.	Guns taken.	Remarks.
1	Pouktum	...	...	Numnwon	...	2, 3, 4, 5, 6, 7	8	48	...	Fined Rs. 60 for complicity in attack on Myitkyina.
2	Kraduga	...	...	Do.	...	...	1	7	...	
3	Lekren	...	...	Do.	...	...	4	30	1	
4	Kumgau	...	...	Do.	...	...	3	20	...	Fined Rs. 75, and four houses out of six burnt for complicity in attack on Myitkyina.
5	Lamut	...	...	Do.	...	...	5	30	...	
6	N'Bong-kong or Kaisu Gatong.	...	...	Do.	...	...	6	...	1	
7	Wesè	...	...	Do.	...	...	10	60	...	Fined Rs. 75 and three buffaloes valued at Rs. 135 for complicity in attack on Myitkyina.
8	Arang	...	...	Ledan	...	9 to 19	8	45	...	
9	Sana	...	...	Do.	...	...	8	48	...	
10	Kumban	...	...	Do.	...	...	7	45	...	
11	Pumgatong	...	...	Do.	...	...	6	35	...	
12	Batwi	...	...	Do.	...	...	7	45	3	
13	Lagyara	...	...	Do.	...	...	8	50	...	A Sana-Krashaka village, but on Lepai-Ledan ground.
14	Tingrut	...	...	Do.	...	...	8	60	...	
15	Kumgatong	...	...	Do.	...	...	...	...	...	
16	N'Kringyan	...	...	Do.	...	...	5	40	...	
17	N'Kringyan-kawnan	...	...	Do.	...	...	3	30	...	
18	Pauwi	...	...	Do.	...	...	4	25	...	
19	Chitmuqum	...	...	Do.	...	...	8	60	...	
20	Tingsha	...	Sana-Latawng	Tingsha	...	21 to 32	2	8	...	
21	N'Dau Mudu	...	Do.	Do.	...	...	6	45	...	
22	N'Dau Metankong	...	Do.	Do.	...	...	6	36	...	
23	Towpreyan	...	Do.	Do.	...	...	2	20	...	
24	Kara	...	Do.	Do.	...	...	4	45	...	
25	Kawlanyan	...	Do.	Do.	...	...	4	35	...	
26	N'Jung	...	Do.	Do.	...	...	2	25	...	
27	Lese	...	Do.	Do.	...	...	4	50	...	
28	Choiwa	...	Do.	Do.	...	...	1	15	...	
29	Manau	...	Do.	Do.	...	...	6	40	...	

30	Langaya	...	Saulon	...	Do.	...	...	20	...	...	3	25	...	
31	N'Krukong	...	Saukrang	...	Do.	...	...	...	...	...	5	40	...	
32	Talang	...	Sanadu	...	Do.	...	...	...	...	...	5	30	...	
33	Maiteng	...	Nongba	...	Do.	...	...	...	...	...	4	26	...	
34	Paushon kong	...	Sinwa	...	Do.	...	...	...	...	...	2	12	...	
35	Katanyan	...	Samnong	...	Do.	...	...	...	...	...	6	36	...	
36	Sheooyan	...	M'Prai-la	...	Do.	...	...	...	...	...	...	...	...	
37	Kumanion	...	Lawonnong	...	Do.	...	...	...	...	...	...	...	...	
38	Kachyan	...	Larong	...	Do.	...	...	...	...	...	4	25	...	
39	Takan	...	Takan-tang	...	Do.	...	...	...	...	...	...	...	...	
40	Pum Rong	...	Mawyan-tang...	...	Do.	...	...	...	...	...	6	36	...	Mawyan Tang and Mawyan Nong are brothers. Fined Rs. 60 for attack on Myitkyina.
41	Lekankong	...	Mawyan yong	...	Do.	...	...	...	...	...	...	...	...	
42	Walupum	...	Paka-souja	...	Do.	...	...	...	...	...	3	18	...	
43	Sirin	...	Shinkran	...	Do.	...	...	...	...	...	4	20	...	
44	Panlang	...	Souchum	...	Do.	...	...	...	...	...	22	160	...	
45	Marantingput...	...	Sinein-chenrong	...	Do.	...	...	...	...	...	6	40	...	Souchum has two brothers, Saulon and Lapri village fined Rs. 90 for complicity in attack on Myitkyina.
46	Kawlanpum	...	Sawansamong...	...	Do.	...	...	...	...	...	3	35	...	Burnt 4th March 1896. Sinein was chief instigator of the attack on Myitkyina.
47	Kautonpum	...	Pauyem-krang	...	Do.	...	...	...	...	...	2	15	...	Fined Rs. 30 for complicity in attack on Myitkyina.
48	Kapa Ninglaw	...	Sinwanong	...	Do.	...	...	...	...	...	3	24	...	
49	Loiyen	...	Saukran	...	Do.	...	...	...	...	...	...	...	...	
50	Yikugatong	...	Ning wa-lapri	...	Do.	...	...	...	...	...	...	...	...	
51	Krawn	...	Krawn-lapri	...	Do.	...	...	...	...	...	...	...	...	
52	Chebaku	...	Sawchye	...	Do.	...	...	...	...	...	...	...	...	
53	Manupun	...	Sau	...	Do.	...	...	...	...	...	4	30	...	
54	Nongyan	...	Sauring	...	Do.	...	...	...	...	...	...	...	...	
55	Pauchang	...	Pauchangnong	...	Do.	...	...	...	...	...	4	30	...	
56	Kwikan	...	Saurong	...	Do.	...	...	...	...	...	...	...	...	
57	Supchyen	...	Tinkawnong	...	Do.	...	...	...	...	...	4	20	...	
58	Yawayappum	...	Sinwa-nong	...	Do.	...	...	...	...	...	...	...	...	
59	Katanpum	...	Sinwarong	...	Do.	...	...	...	...	...	6	36	...	Fined Rs. 80 for complicity in attack on Myitkyina.
60	N'Kumkong	...	Lalongwa	...	Do.	...	...	...	...	...	...	...	...	
61	Shangyan	...	Lamong-sauli	...	Do.	...	...	...	...	...	...	...	...	
62	Tinkram	...	Waulum mitwe	...	Do.	...	...	...	...	...	3	15	...	
63	Wareikon	...	Choiwa katun...	...	Do.	...	...	...	...	...	4	30	...	
64	Wusa	...	Nyongla	...	Do.	...	...	...	...	...	6	38	...	
65	Laiwan	...	Salawsaw	...	Do.	...	...	...	...	...	2	10	...	
66	Paugaw	...	Sabawsounong	...	Do.	...	...	...	...	...	6	36	...	
67	Malankong	...	Malania	...	Do.	...	...	...	...	...	5	36	...	Kumlaio. Sabaw Mitwe and Kalennong are the two most powerful men.

## Gazetteer of Villages.

Serial No.	Name.	Headman.	Tribe.	Clan.	To which sub-ordinate.	Subordinate thereto.	Houses.	Population.	Guns taken.	Remarks.
68	Sharongyan ...	Kalenngong ...	Kaddaw-Latawng ...	Wusa	...	...	...	...	...	Burnt 14th February 1896.
69	Kumtaigatong ...	Singyi ...	Do. ...	Do.	...	...	...	...	...	
70	Sabaw ...	Sabawngong ...	Do. ...	Do.	...	...	3	30	...	
71	Kapa ...	.....	Do. ...	Do.	...	...	4	26	...	Masupyan, headmen Paulumngong ; village burnt and fine of Rs. 38 and three guns collected. The headman of this village is elder brother of Paulumtang, headman of Paulam, square 467, Tract XXXV. Kumlao.
72	Paukang ...	Paukangngong ...	Salong-Latawng ...	Do.	...	...	9	60	...	
73	Tinkrai ...	Tinkraia ...	Do. ...	Nkai	...	...	...	...	...	
74	Naura ...	Nkai-sawing ...	Sana-Latawng ...	Do.	...	...	...	...	...	These two villages fined Rs. 650 and seven guns for raid at Pakren in 1894 and other raids committed in the Mogaung subdivision.
75	Tinkawpum ...	Tingrannong ...	Do. ...	Do.	...	...	...	...	...	
76	Khrainan ...	N'Kaishong ...	Do. ...	Do.	...	...	...	...	...	
77	Pumwai ...	Kumjawa ...	Wawaung-Lepai ...	Kumja	...	...	8	45	...	Kumlao.
78	Dupum ...	Dupumikumja ...	Do. ...	Do.	...	...	...	...	...	
79	N'Kankong ...	Jalisam ...	Do. ...	Paulum	...	...	...	...	...	
80	N'Kanpum ...	Khakranong ...	Do. ...	Do.	...	...	...	...	...	Kumlao.
81	Masupyan ...	Paulumngong ...	Do. ...	Do.	...	...	...	...	...	
82	N'Tau ...	Sukrim (Duwa) ...	Lagya-Lepai ...	Kumlao	...	...	...	...	...	
83	Khadda ...	Khadda-lia (Duwa) ...	Do. ...	Do.	...	...	...	...	...	Kumlao.
84	N'Krang ...	N'Krangdu (Duwa) ...	Do. ...	Do.	...	...	...	...	...	
85	N'Longgaleng ...	Pauchongngong ...	Do. ...	Do.	...	...	6	30	...	
86	Waga ...	Wagasen (Duwa) ...	Do. ...	Do.	...	...	6	36	7	Kumlao.
87	Paror or Sachyi ...	Parorsoulai ...	Do. ...	Do.	...	...	...	...	...	
88	Konglu ...	Konglu-la ...	Do. ...	Do.	...	...	10	65	...	
89	Takri ...	Waranong ...	Do. ...	Do.	...	...	5	25	...	Do.
90	Kawnan ...	N'Sennong ...	Do. ...	Do.	...	...	9	55	...	
91	Sinpong-n'kat ...	Lagyadu (Duwa) ...	Do. ...	Do.	...	...	...	...	...	
92	N'Longtinka ...	Lagyatang ...	Do. ...	Do.	...	...	...	...	...	Do.
93	N'Longjum ...	N'Longjumngong ...	Sampawng-Lepai ...	Do.	...	...	...	...	...	
94	Saipawn ...	Wagasoutong ...	Do. ...	Do.	...	...	...	...	...	
95	Sinwawdung ...	Sinwawdung ...	Do. ...	Do.	...	...	...	...	...	

No.	Place	Population	Distance from Khamai	Remarks
96	N'Sawntawnga	...	...	...
97	Tumbu	...	...	...
98	Ningkat	...	...	...
99	Katawng	...	...	...
100	Sanyong	...	...	...
101	Manau	...	...	...
102	Lawakong	...	...	...
103	Mashawpu	...	...	...
104	Kumgyi	...	...	...
105	Weyrang or Wapyaw	...	...	...
106	Ritpong	...	...	...
107	Kongtut	...	...	...
108	Ninggyakong	...	...	...
109	N'Koi	...	...	...
110	Khayan	...	...	...
111	Fauka	...	...	...
112	Tumbangkong or (Jum)	...	...	...
113	Mudu Sheyankong	...	...	...
114	Mudu Tingsha	...	...	...
115	Chibaungatong	...	...	...
116	N'Lam	...	...	...
117	N'Lau	...	...	...
118	Wara	...	...	...
119	Tingpaipum	...	...	...
120	Parotjau	...	...	...
121	Magwiwan	...	...	...
122	Makanpum	...	...	...
123	Loimai	...	...	...
124	Wara	...	...	...
125	Warayuma	...	...	...
126	Makanpum	...	...	...

## VII.—GAZETTEER OF RIVERS.

**MALI KHA.**—This, the western branch, which, with N'mai-kha, forms the Irrawaddy, has been previously explored and reported on to a point many miles north of that reached by this expedition, Sabaw being the most northerly point at which we touched it. It is here 120 yards broad and very rapid, and continues from 100 to 150 yards broad down to the confluence, which is 20 miles by road south of Sabaw.

As far as was seen by the writer, for this 20 miles it is extremely deep with very rocky banks and many rocks in the stream itself. No rapids other than those at Sabaw were noticed between there and the confluence, but the road traversed was occasionally some distance from the river-bank, and therefore this statement must not be relied on.

At the confluence itself (*see sketch*) the mouths of both the rivers, particularly the N'mai-kha, have the appearance of being nearly blocked by enormous rocks in mid-stream. Mr. Benson, who rowed up to the confluence itself, tells me that a much larger volume of water appears to flow from the Mali than from the N'mai-kha.

**NANTI CHAUNG.**—This stream rises in the southern part of the Kumôn range, about latitude  $25^{\circ} 45'$  and flows in a south and south-westerly direction parallel with and a few miles east of the Mogaung-Panlang road, emptying itself into the Mogaung chaung near Mogaung; course about 40 miles. Crossed near its source on the fourth day's march from Mogaung, where it is a very small stream. At Nanti it is about 25 yards broad and 3 feet deep, but is much deeper in parts.

**PUNGIN KHA.**—Two streams, the Inkom-kha and the Indong-kha, which rise in the Kumôn range, about latitude  $25^{\circ} 55'$  combine to form this river, their point of confluence being half a mile south-east of the village of Mudu. A mile further south-east the Unkam-kha flows into it. It continues its course in a south-easterly direction, and is crossed between Kumban and Sana, where it is about 25 yards broad, 3 feet deep, and very rapid. It then runs nearly due south past Panlang, where it is 30 yards broad by 3 feet deep. About 10 miles south of Panlang its direction changes to east and north-east, and, flowing between the Pi Pum and N'kai Pum ranges, it runs into the Mali-kha 6 miles north of the confluence. It is here crossed by the river-road and is 30 yards broad, 3 feet deep, very rocky and extremely rapid. Total length of course about 41 miles.

**INSOP-KHA.**—This river rises in the Kumôn range, the principal streams which combine to form it being the Tiyang-kha, which rises about latitude  $26^{\circ} 10'$  and the Niyang-kha, rising about latitude  $26^{\circ}$ . It flows in a south-easterly direction through the Sana country, being joined by the Dinong-kha about 3 miles south of Katchyan. It is crossed between Maiteng and Nongyan, where it is 20 yards broad by 2 to 3 feet deep. It flows into the Mali-kha 5 miles north of the Pungin-kha and is here 30 to 40 yards broad by  $2\frac{1}{2}$  feet deep. Total course about 35 miles.

**DARU-KHA** was crossed  $3\frac{1}{2}$  miles north of Sup-kha on the Pumplumbum route. It is joined here by the Daman-kha. It is 70 yards broad by 3 feet deep, firm sandy bottom, slow current, and easy approaches. The Daman-kha is 20 yards broad.

## VIII.—SUPPLY AND TRANSPORT.

OUR transport, as is usual in Upper Burma, consisted of Panthay mules, than which no better exist. They were hired at Rs. 18 each per mensem. This transport is excellent, and has been so often reported on that it is unnecessary for me to say more about it.

As regards the transport capabilities of the country, a few coolies can be obtained, but it would be difficult to persuade the Kachins in any numbers to undertake this kind of work. No other transport is, however, obtainable.

Of supplies there may be said to be none except the paddy, which forms the staple food of the inhabitants and which is thrashed by the women as they require it.

A few fowls may sometimes be obtained, but the Kachin is not anxious to sell them as a rule, and invariably demands an exorbitant price.

Vegetables, such as mustard-leaves, sweet-potatoes, pumpkins, chillies, and brinjals are to be obtained in small quantities from most villages.

Opium is grown in small quantities. In nearly every village a small plot of ground is fenced off for this purpose.

The above would only suffice for a very small party passing through the country. A body of troops would have to carry their rations with them. One or two buffaloes are generally kept by every village. On the approach of troops, however, these are driven off into the jungle.

#### IX.—CLIMATE.

THE climate in this part of the Kachin Hills in January and February is cool and healthy. The thermometer at the end of December and early part of January generally registered  $34^{\circ}$  or  $35^{\circ}$  as a minimum at night, while by day it rose to between  $60^{\circ}$  and  $70^{\circ}$  in the shade.

At an elevation of less than 1,300 or 1,400 feet a thick mist rose during the night and did not disappear till 9 or 10 o'clock in the morning. This mist made the atmosphere very raw and cold and unpleasant, and is also said to be unhealthy, but I do not think our party suffered any ill-effects from it. The minimum temperature, as a consequence of this mist, on the last few nights of December was noticed to be several degrees lower (average  $34\frac{1}{2}^{\circ}$  Fahrenheit) at Panlang, 940 feet above sea-level, than it was at N'dau, 7 miles off, which is over 2,600 feet above sea-level. This I can only account for by the absence of mist at N'dau. We had no rain to speak of until February, which proved a very wet month. From the 15th to 24th rain was almost incessant and the sun was scarcely seen for those 10 days.



# INTELLIGENCE BRANCH—BURMA DIVISION.

## ROUTE No. 1.

From Camp Mogaung (left bank of chaung).

To Ndau.

AUTHORITY AND DATE :—Lieutenant M. N. TURNER, Attaché, I. B. 30th December 1895.

No.	Stages.	DISTANCES.		Rivers and streams.	Military district.	Civil district.	Remarks.
		Intermediate.	Total.				
		Miles.	Miles.				
1	Nanti village	10½	10½	<p>Nweni chaung 8 yards by 2 to 3 feet; clay bottom, slow running, very bad approaches.</p> <p>Three small streams 2 to 3 yards by 1 foot.</p> <p>Nampun chaung 3 yards by 1 foot; clay, slow, easy approaches.</p> <p>Namlun chaung 2 yards by 1 foot; clay, slow, easy approaches.</p> <p>Two small streams 2 to 3 yards by 1 foot; easy approaches.</p> <p>Nanti chaung 30 yards by 2 to 3 feet; clear, slow, pebbly bottom.</p> <p>Namli chaung 7 yards by 1 foot to 2 feet; runs through Nanti village and into Nanti chaung just below.</p>	Mandalay.	Myitkyina.	<p>General direction north-east. Single telegraph wire the whole way within 100 yards of path. The path throughout the whole distance is much overgrown with kaing grass and jungle. The path lies along the bank of the Mogaung chaung for ½ mile and then through high kaing grass for the next 3 miles. At 2½ miles from camp the Nweni chaung is reached. It has very steep approaches composed of clay and is very bad for transport (on this occasion was bridged temporarily). At 3½ miles kaing grass jungle gradually becomes studded with trees, and at 4½ miles light tree jungle commences and continues with occasional patches of thick jungle as far as Nanti village. Good camping-ground, excellent grass and water. Time on march 5 hours (exclusive of halts). Mule transport 5½ hours. No halts.</p>
2	Camp Sinwa kha.	11	21½	<p>Namli chaung 7 yards by 1 foot to 2 feet; easy approaches, clear, pebbly, slow.</p>			<p>General direction north-east. The path lies through thick tree jungle with occasional patches of kaing grass for the whole distance. At a quarter of a mile from Nanti the Namli chaung is crossed without difficulty to transport. At 3½ miles the Nam-</p>

## INTELLIGENCE BRANCH—BURMA DIVISION.

No.	Stages.	DISTANCES.		Rivers and streams.	Military district.	Civil district.	Remarks.
		Intermediate.	Total.				
		Miles.	Miles.				
3	Camp Tinbôn kha.	7½	29	<p>Namsap chaung 3 yards by 1 foot; easy approaches, slow, pebbly.</p> <p>Namkhan chaung 6 yards by 1 foot; easy approaches, clear, slow, pebbly.</p> <p>Sanwo, Ngata, and Namlam kha and four small streams all under 3 yards, broad and shallow, and easily forded.</p> <p>Kasung kha 20 yards by 1 to 3 feet; rapid, stony bottom, clear.</p> <p>Five streams small and easily crossed.</p> <p>Sinwa kha 7 yards by 1 foot; easy approaches, slow, pebbly bottom, clear.</p> <p>Four streams, small, easily crossed.</p> <p>Khakran kha 6 yards by 2 feet; slow, gravelly bottom, right bank commands left.</p> <p>Sawa kha and three streams; all small, shallow, and easily crossed.</p> <p>Kasung kha 20 yards by 2 to 3 feet</p>	Mandalay.	Myitkyina.	<p>khan chaung is crossed without difficulty by transport, and at 4 miles the village of Namkhan is reached and would form a good camping-ground, with excellent grass and water. About a mile further on the country, which, since reaving Mogaung, has been quite flat, commences to be undulating, several small streams and nullas being encountered. At 9 miles the Kasung kha is crossed. There is an excellent site for a camping-ground on left bank. Two and a quarter miles further on the Sinwa kha is reached. Fair camping-ground on left bank, but had to be cleared of jungle to enlarge it. Time on march 5 hours (exclusive of halts). Mile transport 5½ hours (no halt).</p> <p>General direction north-east. The path lies along the foot of the Kumôn range. Thick tree jungle throughout the whole distance, which obstructs the view of the surrounding country. At 2½ miles the village of Aukche is reached and the road descends at an angle of 15° to the Khakran kha which has a very awkward drop from the right bank and delays transport to some extent. The path then leads up a gentle ascent for a mile and then down a steep and bad descent to a narrow defile at the bottom where the Sawa kha is crossed. Two miles further on the Kasung kha is forded and camp on Tinbôn kha 1 mile further on.* Time on march 4 hours 20 minutes (exclusive of halts). Transport same.</p>

\* Very bad camping-ground, jungle has to be cleared.

## INTELLIGENCE BRANCH—BURMA DIVISION.

No.	Stages.	DISTANCES.		Rivers and streams.	Military district.	Civil district.	Remarks.
		Intermediate.	Total.				
		Miles.	Miles.				
4	Camp Maru kha.	6½	35½	<p>deep; rapid, pebbly, easy approaches.</p> <p>Tinbôn kha 5 yards by 1 to 2 feet; slow, pebbly, easy approaches.</p> <p>Tinbôn kha 5 to 10 yards by 1 to 2 feet; slow, pebbly, clear, easy approaches.</p> <p>Mudu kha 5 yards by 1 foot; steep, overgrown banks, slow, pebbly, clear, Nanti chaung 4 yards by 1 foot; pebbly, slow, clear.</p> <p>Quita kha and three streams; small, slow, easily crossed.</p> <p>Maru kha 15 to 20 yards 1 to 2 feet; rapid, pebbly, clear, easy approaches.</p>	...	...	<p>General direction north-east. Path lies along the Tinbôn kha for the first 2½ miles in the bed of the stream for the most part and is much obstructed by fallen trees which prove a great hindrance to mules. Dense tree jungle the whole way. A Kachin halting-place is reached at 2½ miles and the path from this point runs in the bed of the Mudu kha (a tributary of the Tinbôn kha) which has precipitous banks on either side forming a narrow defile. At 4½ miles at the confluence of two streams, one of which is the source of the Nanti chaung, another Kachin camp is reached. The road then leaves the stream and a sharp ascent is encountered for about half a mile. On descending the Quita kha is reached and a mile further on the Maru kha. Bad camping-ground. Jungle has to be cleared. Time on march (exclusive halts) 4 hours. Mule transport 4½ hours.</p>
5	Camp Pali kha.	6½	42	<p>Maru kha 15 to 20 yards by 1 to 2 feet; rapid, pebbly, clear, banks overgrown with jungle.</p> <p>Tauta kha 10 to 15 yards by 1 foot; rapid, pebbly, clear, banks overgrown.</p> <p>Pali kha 40 yards by 1 to 3 feet; rapid, stony, clear, difficult approaches,</p>	...	...	<p>General direction north. The path for 3 miles lies along the bed of the Maru kha, which is crossed, including small streams running into it, 68 times. Dense tree jungle the whole way. At 3 miles the Tauta defile is reached. It is one-third of a mile in length, rocky path, 3 feet wide and precipitous banks covered with thick tree jungle on either side. It can, however, be occupied by flanking parties without much difficulty. Having crossed the Tauta kha a sharp incline upwards is reached from which a fair view of country to west is obtained, A.B. 1,600 feet. At this point the path is through bamboo jungle as far as the Pali kha. The road descends for half mile and ascends again for half mile, where a disused taungya is</p>

## INTELLIGENCE BRANCH—BURMA DIVISION.

No.	Stages.	DISTANCES.		Rivers and streams.	Military district.	Civil district.	Remarks.
		Intermediate.	Total.				
		Miles.	Miles.				
6	Panlang ...	7½	49½	<p>many deep pools.</p> <p>Three small streams, unimportant and easy approaches. Kachyan kha 3 yards by 6 inches; clear, pebbly, easy approaches. Three streams, unimportant, easily crossed. Pungin kha 30 yards by 2 to 4 feet; very deep pools. The river bed is 70 yards wide. Stony bottom, clear, rapid. Difficult approach on left bank.</p>	Mandalay.	Myitkyina.	<p>arrived at. A good view is again obtained from here to west and a little further on to the north and north-east. Path then descends ¾ mile to Pali kha. Fairly good camping-ground on left bank. Good water but little grass. Time on march 5½ hours (exclusive of halts). Transport same.</p> <p>General direction north-east. The path lies through bamboo jungle during the whole stage. Slight ascents and descents throughout. At 4 miles from camp the village of Mawyan is reached, A. B. 1,000 feet, from which a fair view of country north-east and east is obtained. On leaving Mawyan road descends for ½ mile, then a steep ascent is encountered, then descends again and another very sharp ascent is met with. The path then runs down to the Pungin kha which is crossed without difficulty, when it leads up a very steep and difficult hill to the village of Panlang. Time on march (exclusive of halts) 4 hours. Transport (no halts) 4 hours.</p>
7	Ndau ...	7½	56½	<p>Numbyaw kha 12 yards by 1 to 2 feet; easy approaches, slow, pebbly.</p>			<p>General direction east. Path good throughout. Rises from village for about 200 yards to taungyas, then gentle ascents and descents as far as Kara, A. B. 1,000 feet. About half a mile from Kara a very steep bit of clayey ground which would be awkward for transport in rainy weather. Quarter mile further on the Numbyaw kha is reached and crossed without difficulty by transport. One hundred yards further on taungyas are reached and continue at intervals as far as the village of Metankong, before reaching which a deep dry nullah is crossed and shortly afterwards a tributary of the Numbyaw kha, bridged by bamboos. Transport crosses 10 yards further up stream. Metankong, A. B. 1,200 feet, a large village, with good camping-ground and excellent grass for transport. Also good water-supply. Large taungyas just above village and then path lies through thick tree jungle mostly uphill to Ndau B. P. T. 2,620 feet. Time on march (exclusive of halts) 3½ hours. Transport 3½ hours. Return journey 3 hours. Transport 3½ hours.</p>



**Intelligence Branch—Burma Division.**

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**ROUTE No. 1.**

**From Camp Mogaung (left bank of chaung) to Ndau.**

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**MILITARY DISTRICT—MANDALAY.**

**CIVIL DISTRICT—MYITKYINA.**

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INTELLIGENCE BRANCH—BURMA DIVISION.

ROUTE No. 2.

From Panlang	To Sabaw.
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AUTHORITY AND DATE:—Lieutenant M. N. TURNER, Attaché, Intelligence Branch ; January 1896.

No.	Stages.	DISTANCES.		Rivers and streams.	Military district.	Civil district.	Remarks.
		Intermediate.	Total.				
		Miles.	Miles.				
1	Krashaka or Chitmupum	5½	5½	<p>Pungin kha, 30 yards by 1 to 2 feet; rapid; pebbly.</p> <p>Two small streams, 1 yard by 6 inches; pebbly; easy approaches.</p> <p>Myouk kha, 8 yards by 1 foot; rapid; stony bottom overgrown banks.</p> <p>Left bank rather difficult.</p>	Mandalay.	Myitkyina.	<p>General direction west. Path descends steeply for ¼ mile to Pungin kha and ascends less steeply on other side for a mile through a dense bamboo jungle. A.B. 1,100.</p> <p>Direction then south for a mile up and down hill; ¼ mile before reaching village Mawyan (<i>see</i> Route 1) the direction changes to west and path leads through dense bamboo jungle for 1 mile and is much overgrown and apparently little used. It then emerges on to the Mawyan-Krashka road, which leads north for ¾ mile and down hill to the Myouk kha, the left bank of which is awkward for transport. After following the left bank for 30 yards it is again crossed. Then uphill for ¾ mile north-west and disused taungyas are crossed. They are overgrown with thatching grass 4 feet high. A good view south and west is here obtained. A steep ascent for ¾ mile and the village is reached.</p> <p>A Ledan-Lepai village, 8 houses. Good camping-ground for 500 men and good water 300 yards off, but moderate quantity.</p> <p>Time on march, 3 hours 25 minutes. Transport, 4 hours. No halts.</p>
1a	Sirin . . .	2½	...	<p>Myouk kha, 8 yards by 1 foot; rapid, stony bottom; rocky in parts and deeper; overgrown banks.</p>			<p>General direction south-west. Steep descent through bamboo jungle 400 yards to Myouk kha (A. B. 620) then in bed of river (no road) for 1½ miles. Just before leaving river a very bad, rocky torrent. A path would have to be cut through jungle for 50 yards to allow transport to move round.</p> <p>Path then leads up over low spur and again crosses river at point where small stream runs in from left bank. Up steep ascent, 400 yards.</p>

## INTELLIGENCE BRANCH—BURMA DIVISION.

No.	Stages.	DISTANCES.		Rivers and streams.	Military district.	Civil district.	Remarks.
		Intermediate.	Total.				
		Miles.	Miles				
2	Batwi ...	3 $\frac{1}{4}$	8 $\frac{1}{4}$	Nama kha, small stream at bottom of deep nullah; easily crossed Lepi kha, 15 yards by 1 to 3 feet; rapid; stony; easy approaches. N'San kha, 4 yards by 6 inches; rapid; pebbly; easy approaches.	Mandalay.	Mylkyna.	<p>Sirin (Sana-Latawng-Mawyan) 22 houses (B. P. T. 1,463 feet). Camp for 500 men. Good water supply 400 yards off. Time on march, 1 hour 5 minutes. We had no transport as we returned same day to Krashaka, but they could probably do it in the same time provided path was cut at bad place above mentioned.</p> <p>General direction north. Path leads down 200 yards from village to deep nullah (Nama kha). Easy for transport; it is bridged with a bamboo bridge 30 feet high.</p> <p>A sharp ascent of 200 yards and a large taungya is crossed <math>\frac{3}{4}</math> mile in length and <math>\frac{1}{4}</math> mile broad. Camping ground here for a division. Good water from Lepi kha, which flows through the middle of it.</p> <p>A disused taungya is then crossed and bamboo jungle is entered and path descends 300 yards to N'San kha, easily crossed; then sharp ascent 100 yards and road turns north-east. Path here being on steep slope had to be widened for transport: 300 yards further Lagyara (A. B. 1,320); 16 houses (Lepai-Ledan).</p> <p>Camping ground for 200 men. Water good, but not much of it.</p> <p>Path continues along a ridge; direction north-west and fairly level for 1<math>\frac{1}{4}</math> miles to Paurau, in two parts, 150 yards apart, a Lepai-Ledan village, seven houses. Very little water. Path ascends for 100 yards (A. B. 1,460) and lies in same direction fairly level to Batwi. Camping ground for 500 men, but water scarce.</p> <p>A Lepai Ledan village; seven houses. B. P. T. 1,358 feet. Time on march, 1<math>\frac{3}{4}</math> hours, exclusive of halts. Mule transport, 2<math>\frac{1}{4}</math> hours; no halts.</p>
2a	N'kringyan (Kawnan).	3 $\frac{1}{4}$		Nama kha 1 yard by 3 inches; muddy, easy approaches.			<p>General direction north-west. Path leads south-west through upper part of village of Paurau, 200 yards, beyond which it turns sharply west and leads down a steep descent for <math>\frac{1}{4}</math> mile to Nama kha and on to the Paurau taungyas.</p>

## INTELLIGENCE BRANCH—BURMA DIVISION.

No.	Stages.	DISTANCES.		Rivers and streams.	Military district.	Civil district.	Remarks.
		Intermediate.	Total.				
		Miles.	Miles.				
3	Wesè ...	3	11½	<p>Leraun kha, 3 yards by 6 inches; pebbly; rapid; easy approaches.</p> <p>Sheit kha, 4 yards by 9 inches; rocky banks; stony; rapid; easy approaches.</p> <p>N'kring kha, 15 yards by 1 by 2 feet; stony; rapid; steep approach from right bank and easy on left bank.</p> <p>Katong kha, 3 yards by 1 foot, slow, muddy, steep approaches.</p> <p>Pungin kha, 30 yards by 2 feet, rapid, pebbly; easy approaches here.</p>	Mandalay.	Myitkyina.	<p>Camping ground here for a brigade and good water and wood close by. Then north-west with slight ascents and descents for 2 miles, crossing the Leraun and Sheit khas to the town village of N'kringyan, five houses; a Lepai-Ledan village. Good camping-ground for 500 men and abundance of water. The N'kring kha runs through the village ¾ mile up gentle ascent. Pauwi 4 houses. Lepai-Ledan is reached (A. B. 1,100). Time, 1½ hours from start.</p> <p>From here east-south-east 1¼ miles up gentle ascent to N'kringyan Kawnan, three houses (A. B. 1,380). No room for a camp. Fine view of country all round. Can see villages of Mudu, N'koi, Jum, and N'dau. Time, 2¼ hours; transport would do it in three hours.</p> <p>General direction north-east. Path leads down hill; direction north-east through tree jungle for ½ mile, when there is a slight ascent for 200 yards; it then continues, direction east, down hill to the Katong kha, along the bed of which it lies, direction north-east by north for 150 yards; path to right here leads to Pumgatong. Path leaves stream by a steep and muddy bank and emerges on to the Kumban taungyas. Camp here for a brigade at least. At far end of taungyas a deep nullah 3 yards broad by 6 feet deep is crossed; bad approaches to it; and 100 yards further on the Katong kha is again crossed. Road to right here leads to Pumgatong. Half mile further on, direction north, the village of Kumban A.B. 860, a Lepai-Ledan village, 7 houses. This village is reached 45 minutes from starting. The village is in two parts, three houses being ¼ mile further on on the bank of the Pungin kha. Camp here for 500 men. The river is crossed without difficulty. Path from here up slight ascent for ¾ mile, direction north-east to village of Sana, Lepai-Ledan village, 8 houses. Path continues north east by east for ½ mile to village of Wesè, A. B. 880, a Lepai-Numnwon village, subordinate to Pouktum, 10 houses. Camp for 500 men. Time, 1½ hours. Transport same.</p>

## INTELLIGENCE BRANCH—BURMA DIVISION.

No.	Stages.	DISTANCES.		Rivers and streams.	Military district.	Civil district.	Remarks.
		Intermediate.	Total.				
4	Katanpum	Miles. 6½	Miles. 18¾	Kaikha, 3 yards by 1 foot; slow; muddy; steep banks. Piang kha, 3 yards by 6 inches; slow; muddy.			General direction east. Path leads down hill per ¾ mile, direction east to the Kai kha, then up steep ascent for 500 yards and down steep descent 400 yards to the Piang kha. Up very steep incline, direction south-east by south, and bad path for ½ mile, where it emerges on to a much better path, running north and south; A. B. 1,250. To north it leads to Maiteng and to south leads slightly uphill for ½ mile, where a road to right leads to Panlang. Path changes direction here to east and ¼ mile further up slight ascent reaches Pouktum A. B. 1,300 Lepai-Numwon, 8 houses; good camping ground and water. From hear can heliograph to Maiteng. For next 2½ miles direction east; the road is bad and much overgrown with bamboos, patches of kaing grass being frequently met with. At 2½ miles from Pouktum direction changes to north. A very steep ascent and emerge on to a good road which leads to right to Sharaw, 2 miles on; direction north. Taungyas are crossed and ¼ mile further on Katanpum, B. P. T. 1,250. A Latawng village 3 houses; bad camping ground; not room for more than 200 men and water scarce.
5	Maiteng ...	3¼	22½	Njam kha, 7 yards by 1 to 2 feet; rapid; gravelly. Tungla kha, 3 yards by 1 foot; slow; muddy.	Mandalay.	Myitkyina.	Time on march, 4½ hours. Transport 5½ hours. There is another road to Maiteng which, as above mentioned, branches off shortly before reaching Pouktum, but it was not traversed on account of our having to visit Pouktum. General direction north-east; path much overgrown. Leads downhill for one mile; direction east, when village of Ningwan (Wekukatong, Walu) is passed on left of road. At 1¼ miles direction changes to north and path still continues downhill for ¾ mile to Njam kha which is easily crossed. Up steep ascent; direction north. At 2¾ miles path changes; direction east. Here A. B. reads 1,375 feet. Path straight on to Krawn; path here becomes a mere track and leads to a swamp through centre of which runs Tungla kha. Not much obstacle to transport though approaches are bad. Then uphill ¼ mile north-east and the village of Sheoo-yan is passed on the right. A stiff climb of a mile and Maiteng, A. B. 1,620, is reached.

## INTELLIGENCE BRANCH—BURMA DIVISION.

No.	Stages.	DISTANCES.		Rivers and streams.	Military district.	Civil district.	Remarks.
		Intermediate.	Total.				
		Miles.	Miles.				
6	Naw k u m-nongyan.	3 $\frac{1}{2}$	26	Insop kha, 20 yards by 2 by 3 feet; very rapid; stony bottom; easy approaches.			<p>It is a Sana-Krashaka village, 4 houses. Camping ground for 1,000 men, but water rather limited in quantity. Time on march 3 hours; transport, 3<math>\frac{1}{2}</math> hours.</p> <p>General direction north-east by north. Path leads down steep hill through bamboo jungle. At 1<math>\frac{1}{2}</math> miles Insop kha is crossed easily. Path then leads up hill through bamboo and tree jungle for 2<math>\frac{1}{2}</math> miles, when village of Nawkum-Nongyan is reached. A good road throughout for the transport. Time on march, 1 hour 40 minutes; transport 2 hours 30 minutes. Nawkum-Nongyan, B. P. T. 1,306, Latawng-Nawkum, 4 houses. Fairly good camping-ground. Water 300 yards off. Not room for more than 500 men.</p>
7	Paugaw ...	6 $\frac{1}{2}$	32 $\frac{1}{2}$	Lapaw kha, 5 yards by 6 inches; slow; muddy bottom; steep approaches. N'sai kha, N'gum kha, Chingma kha, all small, unimportant, and easily crossed.	Mandalay.	Myitkyina.	<p>General direction south-east. Path leads down a very steep descent for 300 yards to small stream and then rises as steeply and descends again to another small stream; direction then south-east by south over large taungyas, in centre of which path turns north-east and leads down very steep hill for <math>\frac{1}{4}</math> mile to Lapaw kha. Path then rises steadily for 2 miles; direction east and south-east through varying jungle to village. Naw-kum-Kwikan, A. B. 2,050, four houses. Path continues to rise to a height of A. B. 2,600, M'sumprumbum, then direction changes to north for <math>\frac{1}{2}</math> mile and steep descent of 400 feet to village Tinkram, A. B. 2,200, four houses, and another being built. Camping ground here for 500 men but water scarce and <math>\frac{1}{4}</math> mile off. From here road turns south for 1<math>\frac{1}{2}</math> miles and is fairly level to Paugaw, 2,358 B. P. T.</p> <p>Taungyas are crossed <math>\frac{1}{4}</math> mile before entering village. Good camping-grounds for 1,000 men and fair amount of water and of good quality.</p> <p>From taungyas on Paugawpum a very good view is obtained of country to east and south. Heliographic communication with Loilem. Time on march, 4 hours 40 minutes; transport 5<math>\frac{1}{2}</math> hours.</p>

## INTELLIGENCE BRANCH—BURMA DIVISION.

No.	Stages.	DISTANCES.		Rivers and streams.	Military district.	Civil district.	Remarks.
		Intermediate.	Total.				
		Miles.	Miles.				
8	Camp Ingip kha	5½	38	Sinwa kha and Paugaw kha; small rivulets running across path. Ingip kha, 5 yards by 1 foot; rapid; rocky and stony bottom; steep approaches, from right bank especially; banks much overgrown.	Mandalay.	Myitkyina.	General direction north-east. Path leads out of village to north, skirting the western slope of Pangawpum into jungle, ½ mile road changes direction due east, path straight on leading to Tinkram. Path descends gradually through jungle and crosses Simtu kha and Paugaw Kha. At 1½ miles Malan, A.B. 2,200 is reached, a Nawkumlatawng village two houses. Road to right to Sharongyan. Taungyas on right, 200 yards from village. Could camp 500 men here. Path continues down hill through jungle and at 2½ miles large taungyas are crossed. Up to this point road is good. It here strikes off to north for 300 yards through thick tree jungle and becomes a bad path, many fallen trees lying across it; direction east. Path now changes direction to north, and path straight on leads to Wareinkong. A gradual descent of 2 miles and the Ingip kha is reached, the approach to it being very steep and rocky from right bank. Cleared jungle for camp on left bank, A.B. 622. Time on march, 2 hours 15 minutes; transport, 3½ hours.
9	Paukong ...	3½	41½	Pagum kha, nearly stagnant; 3 yards wide; muddy bottom; very steep approaches.			General direction north. Path leads up steep incline through varying jungle for 1 mile where it turns sharply to north-west A.B. 1,200. Continues up hill for ½ mile to village of Wusa A. B. 1,525, two houses. No water except from a well.  Path then leads down hill for 1 mile to the Pagum kha which has an extremely steep approach on its north side, and is very difficult for transport especially in wet weather. Path then is fairly level to Paukong, B. P. T. 1,254 one mile further on. Fair camping-ground but not much water. Time on march, 1 hour 38 minutes; transport, 1 hour 50 minutes.
10	Sabaw ...	2	43½	.....			General direction north-east by east. Path leads out of village, direction east, through jungle, and lies along a ridge the whole way, fairly level. At ¾ mile a very steep and rocky nullah is crossed, with extremely steep approaches and at 1½ miles a similar one.  At 1½ miles direction changes to north and road continues fairly level to Sabaw.

## INTELLIGENCE BRANCH—BURMA DIVISION.

No.	Stages.	DISTANCES.		Rivers and streams.	Military district.	Civil district.	Remarks.
		Intermediate.	Total.				
		Miles.	Miles.				
9a	Paukong to Matongyan. (Authority Lieutenant N. E. Chesney; January 1896.)	2½	...	...	Mandalay.	Myitkyina.	<p>Three hundred yards from village road to right leads round by taungyas to rear of village. Mali kha, distant ¼ miles across taungyas. Good camping ground in village for 500 men. Small supply of water close by, but procurable from Mali kha. Sabaw; three houses (which are to be burnt, by us before leaving). Time on march, ¾ hours; transport, 1 hour.</p> <p>General direction north-west by north. At 1 mile leave road to Shangyan on left. Road good and fairly level up to second mile, thence one mile undulating and steep in places till Matongyan taungyas are reached. This last mile would probably delay transport considerably unless the road was first repaired. Close to taungyas is the village of Matongyan, also, apparently, known as Tupum, the name of the hill on which it is situated. A Lapai village of 8 houses.</p>

**Intelligence Branch—Burma Division.**

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**ROUTE No. 2.**

**From Panlang to Sabaw.**

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**MILITARY DISTRICT—MANDALAY.**

**CIVIL DISTRICT—MYITKYINA.**

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# INTELLIGENCE BRANCH—BURMA DIVISION.

## ROUTE No. 3.

From Lepye Post

To Sabaw.

AUTHORITY AND DATE:—Lieutenant M. N. TURNER, Esq., 1st D.C.L.I., Attaché, Intelligence Branch ;  
February 1896.

No.	Stages.	DISTANCES.		Rivers and streams.	Military district.	Civil district.	Remarks.
		Intermediate.	Total.				
		M. F.	M. F.				
1	Camp Washi kha.	7 4	7 4	<p>Ninrong Katap kha, two yards rocky bed ; steep banks.</p> <p>Pungna kha, 6 yards by 1 foot ; stony bottom ; rapid ; steep approaches.</p> <p>Lekongk u n g kha, fi v e yards ; very rapid ; rocky bed.</p> <p>Tampre kha, 10 yards by 1 foot ; rapid ; stony bottom ; s t e e p a p p r o a c h e s from right bank.</p> <p>Kakan kha, 10 yards by 6 i n c h e s ; slow.</p> <p>Mana kha, 7 yards by 6 i n c h e s . P o s s i b l e camp on left bank.</p> <p>Washi kha, 12 yards by 1 foot ; stony ; rapid ; clear ; s t e e p a p p r o a c h e s ; over- grown banks.</p>	Mandalay.	Myitkyina.	<p>General direction north-east by north. Path leads out of Lepye, direction north-east within 100 yards of the river Irrawaddy and through bamboo jungle. At <math>\frac{1}{2}</math> mile a small stream with steep banks is crossed and at 1 mile another small steam also with steep banks. At <math>1\frac{1}{2}</math> miles another small stream ; here direction changes to west. At 2 miles the Pungna kha is crossed, and at <math>2\frac{1}{2}</math> miles path emerges on to the bank of Irrawaddy for 100 yards, which is here very sandy and rocky.</p> <p>At 3 miles an old camping ground is passed, and the road to left leads to Ndau and is that taken by the Myitkyina column in December.</p> <p>At <math>3\frac{1}{2}</math> miles the path leaves the Irrawaddy, and after crossing the Kakan kha passes through more open country for <math>\frac{1}{2}</math> mile. At the point where path leaves Irrawaddy a very good view of the confluence of the Mali and Nmai khas is obtained.</p> <p>There is a camping ground on the left bank of the Kakan kah for 2,000 men or more, if the kiang grass, which is about 4 feet high and in patches, was cleared.</p> <p>At 4 miles road commences to ascend gradually through thin tree jungle, with occasional patches of bamboo ; direction north.</p> <p>At 5 miles road is fairly level and continues so with slight ascents and descents until a steep descent to camp on left bank of Washi kha.</p> <p>Camp in bamboo jungle, commanded from north side ; good, clear water and bamboo leaves and long grass for transport.</p>

## INTELLIGENCE BRANCH—BURMA DIVISION.

No.	Stages.	DISTANCES.		Rivers and streams.	Military district.	Civil district.	Remarks.
		Intermediate.	Total.				
		M. F.	M. F.				
2	Camp Insop kha.	6 4½	14 ¾	<p>Tawai kha, 3 yards by 6 inches; slow; steep approaches.</p> <p>Many small streams, all with steep approaches and rocky beds.</p> <p>Pungin kha, 30 yards by 3 feet; very rapid; rocky bed; steep approaches and very rocky and difficult on left bank.</p> <p>Many small streams, all with steep approaches and rocky beds.</p> <p>Insop kha, 30 to 40 yards 2½ feet; deep; very rapid; sandy bottom at ford.</p>	Mandalay.	Myitkyina.	<p>Time on march 4 hours 5 minutes exclusive of halts; transport, 5 hours.</p> <p>General direction north; path ascends rather steeply for 1 mile (Washi Pum A. B. 800) and descends gradually to within 100 yards of Mali kha. At 1½ miles Tawai kha.</p> <p>The village of Wapyit is on the opposite bank of Mali kha here, but is not visible.</p> <p>From here the path lies within 100 yards of the Mali kha and is very rough, overgrown, and rocky; many small streams are crossed, all with steep banks and approaches and rocky beds.</p> <p>At 3½ miles the Pungin kha is reached and delays transport exceedingly; several mules were quite carried off their legs and many bags of rations got wet.</p> <p>From here to camp path continues within 100 yards of bank of river, and sometimes along actual bank itself, which is composed of rocks and sand. Many small streams and nullahs are crossed, all with steep approaches and rocky beds. A particularly bad place being crossed half mile from camp, before reaching which taungyas are crossed.</p> <p>The Insop kha presents no obstacle to transport at this time of year. Good camping ground for 1,000 men in the open on sand.</p> <p>Taungya 300 yards south-west of camp, where mules can feed, belongs to Lewe-wein near Talang.</p> <p>Time on march 4 hours 15 minutes, exclusive of halts. Transport 7 hours without halting; transport consisted of 270 laden mules and was consequently much delayed at Punginkha.</p>
3	Sabaw ...	10 4	24 4½	...			<p>Path leads up steep ascent for one mile through tree jungle; here a short, steep descent of 200 yards and then continues up hill to Warein; 1 hour and 30 minutes from start. Not enough water for a camp here.</p> <p>Path then good and fairly level to where meets road from Pangaw.</p> <p>[For remainder of this stage see Route II, Stages 9 and 10.]</p>



**Intelligence Branch—Burma Division.**

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**ROUTE No. 3.**

**From Lepye Post to Sabaw.**

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**MILITARY DISTRICT—MANDALAY.**

**CIVIL DISTRICT—MYITKYINA.**

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# INTELLIGENCE BRANCH—BURMA DIVISION.

## ROUTE No. 3A.

From Insop Kha

To Ndau.

AUTHORITY AND DATE:—Lieutenant F. J. WALLIS, January 1896.

No.	Stages.	DISTANCES.		Rivers and streams.	Military district.	Civil district.	Remarks.
		Intermediate.	Total.				
1	Talang ...	5	5	...	Mandalay.	Myitkyina.	General direction south-west path; crosses taungyas and ascends gently across paddy fields to Talang. Plenty of water and good camp.
2	Ndau ...	7½	12½	...			General direction south-west; from Talang to the bottom of Kauri hill road is good. Cultivation is passed through. Kauri hill is very steep and heavy going from Kauri to Ndau is a very steep ascent, but path is good.

**Intelligence Branch—Burma Division.**

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**ROUTE No. 3A.**

**From Insop Kha to Ndau.**

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**MILITARY DISTRICT—MANDALAY.**

**CIVIL DISTRICT—MYITKYINA.**

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INTELLIGENCE BRANCH—BURMA DIVISION.

ROUTE No. 4.

From Sabaw

To Masupyan.

AUTHORITY AND DATE :—Lieutenant M. N. TURNER, Attaché, Intelligence Branch. February 1896.

No.	Stages.	DISTANCES.		Rivers and streams.	Military district.	Civil district.	Remarks.
		Intermediate.	Total.				
		M. F.	M. F.				
1	Supkha.	6 6½	6 6½	Diyankha, 10 yards by 1 foot, rapid, stony bottom, clear. Lalongkha, 3 yards by 6 inches, muddy bottom. Kanoikha, 3 yards by 6 inches, bottom rocky. Maijakha, 5 yards by 1 foot, slow, muddy bottom; steep approaches.	Mandalay	Myitkyina.	General direction north. Path leads north-east for one mile across the Sabaw and Paukong paddy-fields on to the right bank of the Malikha. After crossing the Diyankha a steep ascent of 300 yards to village of Tinkrai, two houses, which stands in middle of paddy-fields. From here steep descent to Lalongkha, which is crossed twice. At this point the path begins to get very bad, and short steep ascents and descents are frequent, which makes it bad going for transport. At 4 miles the path lies along the bed of Maijakha (and was on this occasion blocked with felled trees by the Kachins. It took ¾ hour to cut path through jungle for transport.) From here a steep ascent for ¾ mile and thence fairly level for 1½ miles to paddy-fields, from which good view east, west, and north is obtained. Village Supkha 200 yards further on. A. B. 1120. Good camping-ground for 500 men; fair supply of water. Time on march 4½ hours; transport 7 hours.

## INTELLIGENCE BRANCH—BURMA DIVISION.

No.	Stages.	DISTANCES.		Rivers and streams.	Military district.	Civil district.	Remarks.
		Intermediate.	Total.				
2	Masupyan	M. F. 4 2	M. F. 11 ½	<p>Pausakha, 3 yards by 6 inches, rocky bed, muddy, steep approaches.</p> <p>Taidungkha, 5 yards by 6 inches, slow, clear, sandy bottom, steep approaches.</p> <p>Mawankha, 5 yards by 6 inches, slow, clear, sandy bottom, steep approaches.</p> <p>Darukha, 70 yards by 3 feet, firm sandy bottom, slow current, easy approaches.</p> <p>The Daman-kha flows into it at this point and is 20 yards broad.</p>	Mandalay.	Myitkyina.	<p>General direction north-east. Path leads steeply down for ¼ mile through thick jungle to Pausakha, a descent of 320 feet; path along bed of stream for 200 yards; up steep ascent of 300 feet for ½ mile, where it is fairly level for 500 yards. Two large rubber trees are noticeable here on right of path.</p> <p>Steep descent of 275 feet to Taidungkha and ascent of 400 feet to hill-top. A. B. 1200. Descend 460 feet to Mawankha and steep ascent 330 feet to Parajau, 8 houses. Four hundred yards from village large paddy-fields are passed through and path then descends steeply in places through thick jungle to the Darukha at its confluence with the Damankha. It is easily crossed at this time of year. Steep ascent of ¼ mile to Masupyan, three houses (burnt). Time on march 3½ hours; no transport with us, but would do it in 4½ hours probably.</p>



**Intelligence Branch—Burma Division.**

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ROUTE No. 4.

From Sabaw to Masupyan.

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MILITARY DISTRICT—MANDALAY.

CIVIL DISTRICT—MYITKYINA.

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INTELLIGENCE BRANCH—BURMA DIVISION.

ROUTE No. 5.

From Paukong	To Waga.
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AUTHORITY AND DATE :—Lieutenant M. N. TURNER, Attaché, Intelligence Branch. February 1896.

No.	Stages.	DISTANCES.		Rivers and streams.	Military district.	Civil district.	Remarks.
		Intermediate.	Total.				
		M. F.	M. F.				
1	Shangyan ...	4 4	4 4	Lekongkungkha, small rivulet, 1 yard wide, very steep and bad approaches. Wulongkongkha, six yards by 1 foot, rocky bed, very rapid, clear, easy approaches. Pautumkha, 6 yards by 1 foot, rocky bed, rapid, clear, easy approaches. Shopkha, 5 yards by 6 inches, very rocky and rapid, easy approaches.	....	....	General direction west. Path leads down a very steep descent for 100 yards to the Lekongkungkha, from which the village water is drawn. Then fairly level for $\frac{1}{2}$ mile. A 1 mile road to right to Matongyan and road continues fairly level to Wulongkongkha easily crossed. Camping-ground on right bank for 500 men if undergrowth was cleared : $\frac{1}{2}$ mile further on the Pautumkha is crossed and path begins ascending gently through large tree jungle, and for the last $\frac{1}{2}$ mile is fairly level to Shangyan. A. B. 2300. Camp $\frac{1}{2}$ mile north of village on old taungya for 300 men. Water fairly plentiful and good from small stream. Time on march $2\frac{1}{2}$ hours ; transport 4 hours (road very slippery on account of wet weather).
2	Tinkrai ...	4 6	9 2	Jawarungkha, a small stream, easily crossed. Matikha, 10 yards by 1 foot, slow, clear, stony bottom, easy approaches. Small stream, name unknown. N'diengkha, 7 yards by 1 foot, rapid, clear, rocky bottom, easily crossed.			General direction north-west. Gentle descent, direction north, for $\frac{1}{2}$ mile through tree jungle, then steeper ; direction west to 1 mile to Jawarungkha, fairly level for 300 yards through high kaing grass, and 500 yards of tree jungle to Matikha ; after crossing this stream through kaing grass for 200 yards then nearly level through tree jungle and occasionally patches of kaing grass to steep descent for 100 yards to small stream, name unknown, which has steep approaches ; 200 yards further on the N'diengkha is crossed, and then a short steep ascent with deep nullah on the left, and down a short descent to Intyepkha, which falls 20 feet perpendicularly over a rock. Path crosses just above the fall.

## INTELLIGENCE BRANCH—BURMA DIVISION.

No.	Stages.	DISTANCES.		Rivers and streams.	Military district.	Civil district.	Remarks.
		Intermediate.	Total.				
		M. F.	M. F.				
3	N'Longgaleng.	4 3½	13 5½	Intyepkha, 5 yards by 6 inches, slow, clear, rocky bottom, easy approaches.  ...			Jungle is here very thick and luxuriant, high trees and thick undergrowth. Path then ascends, sometimes abruptly for 1 mile to Tinkrai. A. B. 1700. Good camping-ground for 200 men. Water from two places, a well and a small stream, and is good but moderate in quantity. Time on march 2 hours; transport 2½ hours. (Road wet and slippery). General direction north-west. Path descends for 300 yards, direction north, then turns west, path straight on to Tinkawpum, path then fairly level through tree jungle. At ½ mile road to left leads to Takan. Path continues fairly level along the top of a ridge; direction north-west to 2 miles, where it changes direction to nearly due north for 1 mile. At 3 miles direction changes to west, and at 3½ miles taungyas are crossed, in centre of which is village of N'Krang. A.B. 1800. Two houses. Good view from here to north, east, and west. Path ascends rather abruptly for ¾ mile to N'Longgaleng. A. B. 2150. Confined camping-ground for 200 men. Water scarce (from a well). Time on march 2 hours 20 minutes; transport 3 hours. (A good helio station).
4	Taikri ...	4 2	17 7½	Dinongkha, 30 yards by 2 to 3 feet, firm pebbly bottom, rapid, clear, easy approaches.			General direction north-west by west. Path descends, direction west, for 600 feet in the first mile, then rises gently to Konglu. A.B. 1750. Houses. From here very steep descent just below village to nullah, direction south-west, and continues to descend very steeply in parts. At ¾ mile from Konglu turn to north through jungle, as path straight on though leading to Taikri is impassable for transport. At 1¼ miles from Konglu the Dinongkha is reached. A.B. 900. There is a large bamboo arrangement across the river for catching fish. After crossing the river the ascent is very steep, and the path very bad, being quite precipitous in some places, road having to be cut for transport several times. It would be quite impossible for any except mule transport. It continues thus for one mile, when it emerges on to good path running north and south: 200 yards further on the taungyas are reached and village at the further end of them. Taikri 2275. Fair

## INTELLIGENCE BRANCH—BURMA DIVISION.

No.	Stages.	DISTANCES.		Rivers and streams.	Military district.	Civil district.	Remarks.
		Intermediate.	Total.				
		M. F.	M. F.				
5	Waga ...	1 4	19 3½	.....	.....	.....	<p>camping-ground, but very little water. Taungyas would make excellent heliographic station. Loi Lem, Pangaw, N'dan, the Pumwaipum range, and all other defined peaks east, west, and south being plainly visible. View to north is partly hidden by Tingpaipum. Time on march 4 hours ; transport 5 to 6 hours.</p> <p>General direction west. Path lies north-west along a ridge for 1 mile, fairly level, and through jungle and kaing grass, and south-west for the remainder of the distance, crossing two nullahs in the last mile.</p> <p>Waga. A. B. 2000. Good camping-ground and water plentiful and of good quality. Time on march 50 minutes ; transport same.</p>

**Intelligence Branch—Burma Division.**

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**ROUTE No. 5.**

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**From Paukong to Waga.**

**MILITARY DISTRICT—**

**CIVIL DISTRICT—**

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# INTELLIGENCE BRANCH—BURMA DIVISION.

## ROUTE No. 6.

From Waga	To Panlang.
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AUTHORITY AND DATE :—Lieutenant M. N. TURNER, 1st Duke of Cornwall's Light Infantry, Attaché, Intelligence Branch. February 1896.

No.	Stages.	DISTANCES.		Rivers and streams.	Military district.	Civil district.	Remarks.
		Intermediate.	Total.				
1	Selan-khayen	M. F. 11 3	M. F. 11 3	Tiyangkha, 15 yards by 2 feet, rapid, stony bottom, clear, easy approaches.  Sakaikha, 2 yards, a rocky rivulet, bad approaches, especially right bank.  Ningyawkha, 10 yards by 2 feet, rocky, rapid, clear, steep approaches.	Mandalay.	Myitkyina.	General direction south south-west. Path leads out of village, direction south-west for $\frac{1}{4}$ mile along top of ridge. Short ascent and then a short descent. At $\frac{1}{4}$ mile direction changes to west, and a short steep ascent leads to Sachi, A. B. 2150. Five houses. The approaches to the village are extremely steep from all sides especially from the west, where path drops very abruptly 200 feet. Road then rises and falls gently, and at $1\frac{1}{2}$ miles from Sachi taungyas are crossed. Direction here changes to south-west, and path ascends gently to Kawnan, A. B. 2000. Six houses. On north side of village two paths to north-west leading one to Shanyan and the other to Walu. On leaving Kawnan path leads in a southerly direction through kaing grass, thatch grass, and small bamboo jungle along a ridge, and a view of surrounding country is frequently obtained. Path descends gradually and at 2 miles from village taungyas are crossed on which is Sinwa, A. B. 1400, one house, an offshoot of Selan-khayen. From here path continues to descend gradually until a steep drop of 150 yards to Tiyangkha, A. B. 900. Path then uphill, direction west for $\frac{1}{4}$ mile, when taungyas are crossed, belonging to Taikong (which village is now deserted), A. B. 1500. Path then fairly level for $\frac{1}{4}$ mile, then short descent to Sakaikha, a rocky rivulet with bad approaches. Path then uphill south-west $\frac{1}{4}$ mile, where it makes a sharp turn south-east, road straight on leading to Tingput.

## INTELLIGENCE BRANCH—BURMA DIVISION.

No.	Stages.	DISTANCES.		Rivers and streams.	Military district.	Civil district.	Remarks.
		Intermediate.	Total.				
		M. F.	M. F.				
2	Ritpong ...	5 1½	16 4½	Niyangkha, 30 yards by 2 to 3 feet, rapid, pebbly bottom, clear, easy approaches. (This is the principal stream forming Insopkha and is sometimes thus called by the natives.) Wapyawkha, 15 yards by 1 foot, slow, clear, pebbly bottom, steep approaches. Wayrongkha, 10 yards by 6 inches, slow, clear, pebbly, steep approaches.	Mandalay.	Myitkyina.	<p>Then cross old taungyas with nullah at far end and downhill very steep for ¼ mile to Ninyawkha, A. B. 975.</p> <p>Along bed of stream for ½ mile, direction south-west, then leaves stream and ascends for ¾ mile, where it emerges on to a good road, leading east to Ningkut (Khamai-wa's village), and south-west ¼ mile, fairly level to Selan-khayan, A. B. 1650. Ten houses.</p> <p>From here gentle descent, but steep in parts for 2½ miles to the lower village of Selan-khayan, A. B. 1050. Four houses.</p> <p>The village of Ningkut is frequently seen from the road and is apparently built on the top of a rocky peak, in a very commanding position. Camp on left bank of Niyangkha 300 yards from village. Kaing grass had to be cleared.</p> <p>Time on march 5½ hours exclusive of halts; transport 7½ hours.</p> <p>General direction south, Cross Niyangkha and then up steep ascent for ¼ mile, when path becomes fairly level. At ¼ mile from stream path to left leads to Sinpong-n'kat or Lajadu. Bamboo jungle mostly here and path continues in a south-westerly direction until at 2 miles from river Mashawpu is reached, A.B. 1350. Taungyas are crossed before entering village. Path leaves village in a south-easterly direction, and after rising and falling rises to 1450 A.B. at ¾ mile from village. Then descends for a mile to confluence of Wapyaw and Wayrung khas. Path lies along bed of latter stream, direction south-west, for ½ mile, and ascends very steeply for ½ mile, in the same direction to Ritpong A.B. 1450. Ten houses. Good camping-ground in village. Water plentiful from stream 300 yards off. Road north of village to Nkoi and Hukong valley. Time on march 2 hours and 25 minutes; transport 3½ hours.</p>
3	Pouktom ...	8 0	24 4½	...			<p>General direction south-east. Path as far as Sana is that used by rubber traders and is good and level. Path leads out of village along a ridge for 2½ miles where large taungyas are crossed, and continue at inter-</p>

## INTELLIGENCE BRANCH—BURMA DIVISION.

No.	Stages.	DISTANCES.		Rivers and streams.	Military district.	Civil district.	Remarks.
		Intermediate.	Total.				
		M. F.	M. F.				
3a	N' B o n g Kong.	3 6	...	...			vals on either side of road. At 3 miles from Ritpong, path to right leads to Jum. At 4 miles a stream is crossed and path then leads fairly level to Sana. Time to Sana $1\frac{1}{2}$ hours (For remainder of this stage see Route II, Stages 3 and 4). Time on march to Poukton 3 hours and 50 minutes, exclusive of halts; transport 5 hours 45 minutes.
4	Panlang ...	5 4	30 0 $\frac{1}{2}$	Gwibrakha, 4 yards by 6 inches, slow, stony bottom, clear. Tombukha, 10 yards by 1 foot, slow, stony bottom, clear, steep approaches.	Mandalay.	Myitkyina.	General direction north. General condition of road very good, about 10 feet broad, and no nullahs or streams to cross; at 3 miles Kungau A.B. 1400. Four houses. N'Bong Kong A.B. 1300. Time on march $1\frac{1}{2}$ hours; no transport. (Lieutenant Wallis, 2nd March 1896.)
4a	Marantingput.	4 4	...	Sumwikha, 5 yards by 1 foot, slow, muddy, high, overgrown banks, difficult approaches. Small stream 2 yards by 6 inches, easy approaches.			General direction south. Path leads out of village direction south-east. At $\frac{1}{4}$ mile road to left to N'dau. Path fairly level and good. At 1 mile descends gradually to Gwibrakha, then up hill for 1 mile to Lakren A.B. 1450. Six houses. From here path fairly level, direction south-west, for $1\frac{1}{2}$ miles to Kraduga. From here direction south-east up and down hill for a mile to Tombukha, after crossing which direction south-west $1\frac{1}{2}$ miles to Panlang. Taungyas are crossed $\frac{1}{4}$ mile north-east of village. Time on march 2 hours 10 minutes; transport $2\frac{1}{2}$ hours.
							General direction south-east. Path leads north-east out of Panlang along N'dau road for $\frac{1}{4}$ mile, then branches off to right and passes through high kaing grass and thatch, direction south-east for $\frac{3}{4}$ mile, fairly level when it descends on to taungyas. After crossing taungyas descends to Sumwikha. Then steep ascents for 300 yards and down 200 yards to another stream. From here direction south path rises and falls every 100 yards or so, and in fairly level for the last $\frac{1}{4}$ mile to Marantingput. Taungyas on north-west of village. Time on march $1\frac{1}{2}$ hours (village was burnt).

**Intelligence Branch—Burma Division.**

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**ROUTE No. 6.**

**From Waga to Panlang.**

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**MILITARY DISTRICT—MANDALAY.**

**CIVIL DISTRICT—BHAMO.**

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# INTELLIGENCE BRANCH—BURMA DIVISION.

## ROUTE No. 7.

From Lapye

To 'Ndau.

AUTHORITY AND DATE :—Lieutenant H. W. CRUDDAS, Assistant Commandant, Myitkyina Battalion ; 21st December 1895.

No.	Stages.	DISTANCES.		Rivers and streams.	Military district.	Civil district.	Remarks.
		Intermediate.	Total.				
		M. F.	M. F.				
1	Wasika ...	6 6	...	<p>(1) Naung Man kha, 1 yard broad; scarcely any water; muddy crossing for mules; banks 30 feet high.</p> <p>(2) No name, 2 yards broad; very little water running; banks 20 feet high.</p> <p>(3) Tsentha kha, 3 yards broad, 9 inches deep; banks steep, 30 feet high, crossing muddy.</p> <p>(4) Wekhan kha, 6 yards broad, 6 inches water; rocky bed; banks 15 feet high.</p> <p>(1) Konkrum kha, 5 yards broad, water 1 foot deep. Another kha coming from west joins this one. The united streams flow east into</p>			<p>General direction north-west. From Lapye the road runs almost due west for <math>\frac{1}{2}</math> mile when it makes a bend to the north-west-by west and continues in this direction for <math>2\frac{1}{2}</math> miles. This portion of the road passes through dense bamboo cane and small tree jungle and a few patches of thatching grass.</p> <p>The streams noted here are passed.</p> <p>Nos. (1), (2) and (3) would in all probability be impassable for a great part of the rains.</p> <p>The road for these first 3 miles runs along the right bank of the Irrawaddy. Now leaving this it turns north-by-west and passes for a space of 1,600 yards through bamboo and small tree jungle, crossing the two streams described here; 600 yards beyond the Konkrum kha, a path branches to right leading to Sabaw. After crossing the Tangpyi kha, the road runs up a spur in a nearly northerly direction for about 1,000 yards through tree and bamboo jungle and open grass</p>

## INTELLIGENCE BRANCH—BURMA DIVISION.

No.	Stages.	DISTANCES.		Rivers and streams.	Military district.	Civil district.	Remarks.
		Intermediate.	Total.				
		M. F.	M. F.				
				<p>Irrawa d d y ; rocky bed, slight current.</p> <p>(2) Tangpye kha, 15 yards broad, 1 foot deep. Fast current flow- ing east ; rocky bed.</p> <p>Wasi kha, two branches, first a muddy-hol- low, 3 yards broad.</p> <p>(2) Five yards broad 9 inch- es d e e p ; runs east.</p>			<p>patches. It then turns to the north-west along level ground for about 1,000 yards, after which there is another ascent of 1,100 yards. Thence through thick bamboo jungle (of a large kind) along the lower level top of the ridge to the Wasi kha, a distance of nearly a mile. Water from a small stream 600 yards before arriving at camp. Camp enclosed by bifurcation of Wasi kha, in thick bamboo jungle ; very bad camp.</p> <p>Time on march 4½ hours, including halts with transport.</p>
2	Pungin Kha	5 1	11 7	<p>...</p> <p>(1) N a m e of stream u n - k n o w n , 2 yards broad ; little water ; banks 5 feet high ; rocky bed.</p> <p>(2) Name u n - k n o w n , 4 yards broad ; banks 15 feet high, flows in- to Pungin kha ; scarcely any water.</p> <p>(3) Name u n - k n o w n , 3 yards broad, 4 inches deep, flowing into Pungin kha.</p> <p>(4) Pungin kha, two branches.</p> <p>(a) 25 yards broad, 18 in- ches d e e p ; moderate cur-</p>	...	...	<p>General direction north-west. The road after leaving the camp at Wasi kha ascends for 600 yards through dense bamboo jungle and then falls gradually down to the Pungin kha, a distance of 5 miles and 1 furlong. The gradients are on the whole easy, but there are a few steep places ; the general fall is broken by occasional short ascents up to the village of Sadankong (now deserted, one small house only being left). The jungle is nearly all bamboo. The distance of this vil- lage from the camp at Wasi kha is 4 miles and ¼ furlong. Thence down to the Pungin kha the road runs through small tree, bamboo and large tree jungle. At a distance of 5 miles and 1 furlong from the Wasi kha camp the right bank of the Pungin kha is struck, short distance before this point a small stream being passed. The road now bends sharp round to the south-west following the right bank of the Pungin kha. About 100 yards beyond this turn a narrow stream is passed, in crossing which the transport experienced some difficulty owing to the soft crumbling nature of the soil of its banks and the mud in its bed. A low hill is then crossed, at the foot of which another stream flows across the road ; 300 yards further on the road crosses the Pungin kha, here split into two arms by a long narrow island covered with kaing grass.</p> <p>The camp is on the left bank, about 50 yards beyond the crossing. Good camp ;</p>

## INTELLIGENCE BRANCH—BURMA DIVISION.

## ROUTE No. 7.

No.	Stages.	DISTANCES.		Rivers and streams.	Military district.	Civil district.	Remarks.
		Intermediate.	Total.				
		M. F.	M. F.				
3	Ndau ...	3 0	14 7	<p>rent, 60 yards diagonally across island ;  (b) 30 yards, 2 feet 6 inches ; strong current in middle ; stony bed ; right bank easy ; left bank about 6 feet high but not difficult.</p> <p>Name unknown, 10 yards broad, 6 inches deep, flowing south into Pungin kha.</p>			<p>water, excellent from Pungin kha. Fire-wood and grass in abundance. Length of march 5 miles and 7 furlongs. Time with coolie transport and guns including halts four hours.</p> <p>General direction west-by-north. The road runs almost due west to the village of Kauri. The first 600 yards lie through grass—old cultivation—succeeding which is bamboo and tree jungle. At 970 yards a stream is crossed, beyond which the ground at once commences to rise. The ascent to Kauri is generally steep. Kauri village is <math>1\frac{1}{4}</math> miles distant from the Pungin kha camp. There are four houses in the village and the people are of the Tongsha Sana Lat-aung tribe. The road now bends round to north-west and leads up to Ndau 1 mile and 2 furlongs distant ; a stiff ascent. The camping-ground is over the village and spacious ; the supply of water is scanty and has to be brought from a considerable distance down the hill.</p> <p>Length of march 3 miles.  Time with transport 4 hours. Much delayed by weak mules.</p>

**Intelligence Branch—Burma Division.**

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**ROUTE No. 7.**

**From Lapye to Ndaou.**

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**MILITARY DISTRICT—**

**CIVIL DISTRICT—**

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# INTELLIGENCE BRANCH—BURMA DIVISION.

## ROUTE No. 8.

From 'Ndaou

To Maiteng.

AUTHORITY AND DATE.—Lieutenant H. W. CRUDDAS, Assistant Commandant, Myitkyina Battalion,  
Military Police: 3rd and 4th January 1896.

No.	Stages.	DISTANCES.		Rivers and streams.	Military district.	Civil district.	Remarks.
		Intermediate.	Total.				
		M. F.	M. F.				
1	Katanyan ...	6 6½	...	<p>Pyau kha, 3 yards broad 9 inches deep; current moderate, flowing west. Height by aneroid 900 feet.</p> <p>Tsambo kha, 8 yards broad 9 inches deep; sluggish current, flowing west. Height by aneroid 810 feet.</p> <p>Kadang kha, 4 feet broad 9 inches deep, flowing south-west.</p>	...	...	<p>General direction north-west. Road descends through big tree jungle for 2 miles 2½ furlongs to the Pyau kha. A path runs to Lese from the crossing of this stream in a north-east direction.</p> <p>After crossing the stream a succession of low hills are traversed covered with small tree, bamboo, and cane jungle, the highest point being reached at the site of the now deserted village of Langabum (1,275 feet by aneroid). Another path to Lese bifurcates to right at 1,600 yards from Pyau kha. Two and half miles beyond the Pyau kha the Tsambo kha is crossed; the descent to and ascent from this stream are both steep. Seven hundred yards beyond this kha the village of Tinkrokong is passed on the left of the road and situated some distance from it. Thence a descent to a small muddy stream with very little water and a number of low hills to be crossed before the road emerges into the old cultivation of Katanyan, 830 yards; before reaching this village the taungyas of Langabum are passed and 250 yards before it a small stream, the Kadang kha, is crossed, between which and the village there is another small rivulet. Distance from Tsambo kha to village 1 mile 7½ furlongs. Camping-ground in village. Grass, firewood, and water from the last-mentioned two streams. Plentiful water, good.</p> <p>Time on march with transport, including halts, 4 hours 25 minutes; four houses in this village. Height of Katanyan 1,025 feet (by aneroid).</p>
2	Maiteng ...	0 3	9 6½	<p>...</p> <p>'Ntcham kha, 10 yards broad 2½ feet deep; no current; flows east. Height 830 feet. Crossing bad.</p>	...	...	<p>General direction north-by-east. About ½ mile beyond Katanyan the road runs through the village of She-U-Yan (Lepai; two houses) and down to the 'Ntcham kha, the descent to the right bank of which is exceedingly steep. The crossing is difficult. Thence a stiff ascent up to 1,200, after which the road is fairly level to the foot of the Maiteng hill, where a small stream is crossed. Steep ascent to Maiteng, 1,620 feet. Jungle along road, mostly small tree and bamboo.</p> <p>Time on march 2 hours and 45 minutes with laden transport including halts.</p>

**Intelligence Branch—Burma Division.**

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**ROUTE No. 8.**

**From 'Ndau to Maiteng.**

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**MILITARY DISTRICT—**

**CIVIL DISTRICT—**

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# INTELLIGENCE BRANCH—BURMA DIVISION.

ROUTE No. .

From Paukong	To Borkhamti.
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AUTHORITY AND DATE:—Native information (Kawri, Headman of Tingsha). February 1896.

No.	Stages.	DISTANCES.		Rivers and streams.	Military district.	Civil district.	Remarks.
		Intermediate.	Total.				
		Miles.	Miles.				
1	Sup kha.			Daru kha.	Mandalay.	Myitkyina.	
2	Wara Nkan-kong (Wawang).			Waship kha.			
3	Kachangbum			Maraw kha.			
4	Pum pl u m-bum.			Kanang kha.			
5	Lebong.			Pungin kha.			
6	N'Jongk u m (Nkhum).			Pungsi kha.			
7	N' S h i e n (Nkhum).			Kashung kha.			
8	Walau p u m (Nkhum).			N'Sa kha.			
9	R u n k u (Maru).			Munya kha.			
10	T a w a (Nkhum).			Munglan kha.			
11	Kenchong-la (Marip).			(None of these streams are said to be more difficult to cross than Pungin kha in Sana country)			
12	Se i n o n g (Marip).						
13	Lashula t a p (Kaku).						
14	Tau m a t y a (Kaku-Marip)						
15	K a m y a n (Kaku-Marip)						
16	Kashung kha						
17	N'Sa kha.						
18	Munya kha.						
19	Meinlang.						
20	Pe i n l a n g (K a m t i-shan).						

**Intelligence Branch—Burma Division.**

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**ROUTE No. .**

**From Paukong to Borkhamti.**

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**MILITARY DISTRICT—MANDALAY.**

**CIVIL DISTRICT—MYITKYINA.**

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# INTELLIGENCE BRANCH—BURMA DIVISION.

## ROUTE No. . .

From Ritpong	To Maingkhwan, Hukong Valley.
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AUTHORITY AND DATE:—MAUNG SAN, Trader, Mogaung; March 1896.

No.	Stages.	DISTANCES.		Rivers and streams.	Military district.	Civil district.	Remarks.
		Intermediate.	Total.				
		Miles.	Miles.				
1	N'Jakong ...	9	...	...	...	...	Good road all the way. Uphill most of the way and very steep. N'Jakong has eight houses.
2	Chenaptu ...	9	18	...	...	...	Good road. Steep ascent all the way. Chenaptu has five houses.
3	Punkongtong	6	24	...	...	...	Good road. Gentle descent. Camp in jungle.
4	N'Biengka	9	33	...	...	...	Good road. Steep descent generally but sometimes easy. N'Biengka has eight houses.
5	M'Bom ...	8	41	...	...	...	M'Bom has 40 houses.
6	Cheingrang	11	52	...	...	...	Cheingrang has 12 houses.
7	Maingkhwan	11	63	...	...	...	.....

**Intelligence Branch—Burma Division,**

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**ROUTE No. .**

**From Ritpong to Maingkhwan, Hukong Valley.**

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**MILITARY DISTRICT—**

**CIVIL DISTRICT—**

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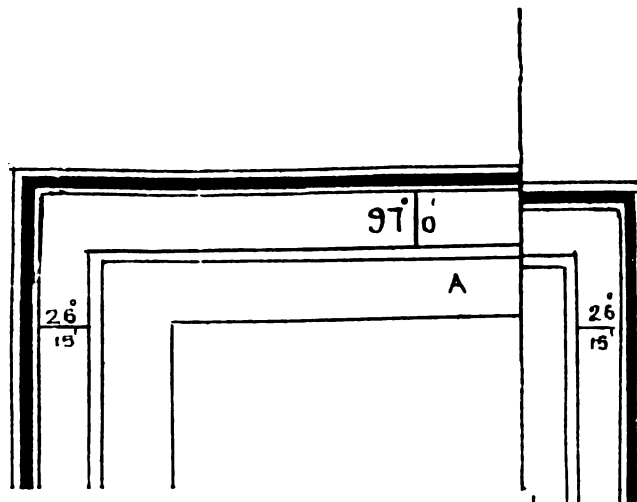












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